

Historic, Archive Document

Do not assume content reflects current
scientific knowledge, policies, or practices.

62-41

Economic and Technical
Fertilizers 20-10-10
Rec'd OCT 3 1916



INLAND SEED CO

1916 CATALOGUE

SPOKANE WASHINGTON

White Cap Dent—See Page 8

THE INLAND SEED CO.

Our Annual Message

The Year 1915 Has Gone, likewise all its trials and sorrows, its aspirations and desires; and we are now ushering in the new year 1916, and trust that it may be the bearer of good news and glad tidings to one and all.

We want to express our appreciation of what 1915 brought to us, in an increased number of friends and patrons, and in a closer relationship and better understanding between our many customers and ourselves. Every effort has been bent, and every new thing undertaken with the sole purpose in view of increasing our usefulness and of rendering better service to the public.

To what extent we have succeeded may be judged from the fact that this year we are issuing not only a larger catalogue than we have ever issued before, but also a greater number, and are listing a large number of items never before listed by us.

We Still have the enviable reputation of not only conducting the largest seed business, but also of carrying the most reliable seeds and other items of any seed house between Minneapolis and the Coast.

Please Remember that we conduct our business on a cash basis, and that it will be necessary to send cash with order. If there is anything you do not understand, please write before ordering, and we will gladly give you the information wanted.

And When You Order

Write name and address plainly.
Give postoffice and shipping point.
State if wanted by express or freight.

Include prepay charges if necessary.
Figure postage correctly.
Notify us at once of any mistake.

THE INLAND SEED CO.

The Inland Seed Company's 1916 Seed Catalogue 1916

ARTICHOKE SEED

CULTURE—Sow in April in rich soil and transplant the following spring to permanent seed beds three feet apart and two feet between plants. Green Artichokes only give a partial crop the first season, but the beds will be bearing for years. Protect in winter by a covering of leaves of coarse manure.

GREEN GLOBE—Grown for the unripe flower heads, which are highly esteemed by epicures.

Pkt., 10c; oz., 35c.

ARTICHOKE TUBERS

ARTICHOKE TUBERS—Planted and cultivated the same as potatoes. Of great value for feeding stock. They are the best hog feed known. They are remarkable for their fattening properties, and great productiveness. One lb., postpaid, 15c; 50 lbs., \$1.25; 100 lbs., \$2.50.

ASPARAGUS SEED

CULTURE—Sow early in spring in rows; when one year old the roots may be taken up and transplanted in permanent beds, which should be made by taking out the soil to a depth of about 16 inches, fill in with 6 inches well rotted stable manure, then 6 inches of soil, somewhat firmed, and place the roots on the same about 10 inches apart with the roots



well spread out and cover so that the crown will be about 4 inches below the surface.

PALMETTO—This variety is very desirable on account of its earliness, bright green color, presenting an attractive appearance, excellent flavor and productiveness.

CONOVER'S COLOSSAL—A standard sort; quality first class, spreads less than other sorts.

BAER'S MAMMOTH—A favorite with market gardeners. Shoots very large, tender, quick growing, and thick to the top.

All of the above: Pkt., 5c; oz., 10c; ¼ lb., 25c; ½ lb., 40c; 1 lb., 75c.

Beans

It is a fact worth emphasizing that in order to secure the best results from seeds that the seeds themselves should be fully matured, well developed, of good germination, and capable of strong, vigorous growth. In order to secure these very essential and necessary qualities, we are having our wax and green podded bush varieties grown in Washington and Idaho, in localities especially suited to their growth and culture, by men who thoroughly understand the preparation of the ground, cultivation and harvesting of the crop.

This insures to us seed of the very best type and of the highest quality.

CULTURE—Beans should not be planted until the ground is warm, as cold and wet weather will cause the seed to rot. For garden culture plant four or five seeds in hills one foot apart, in rows 18 inches apart. For field culture, make the rows 3 or 3½ feet apart, and cover with two inches mellow soil.

Wax Podded, Bush

PROLIFIC BLACK WAX—A very early wax podded sort; pods round, stringless and of exceptionally delicate flavor and fine quality.

IMPROVED GOLDEN WAX—This is the favorite early wax variety, more largely used than any other. The pods are flat, yellow, stringless, large and handsome. Very productive.



Golden Wax

DAVIS WHITE WAX—A hardy, rustless and immensely productive variety. The pods are long, nearly straight, white and handsome.

The foregoing beans unless otherwise quoted: 1 lb., 25c; 5 lbs., \$1.15; 10 lbs., \$2.25; add postage.

Pole

LAZY WIFE—The pods are produced in large clusters in great abundance and are from four to five inches in length. Dark green, rather flat but broad, quite thick, fleshy, and entirely stringless, retaining their brittleness until fully developed; of unusually rich flavor.

LONDON HORTICULTURAL OR SPECKLED CRANBERRY—Vines moderately vigorous, with large, light-colored leaves and purple blossoms; pods short, broad, pale green but becoming, streaked with bright red; beans large, splashed and spotted with wine red.

KENTUCKY WONDER (Old Homestead)—Best variety, round and fleshy, maturing quickly and are excellent for use in green state. Enormously productive.

DUTCH CASE KNIFE—Good corn hill bean; very early; pods long and flat; beans white; used green or dry.

All four varieties: 1 lb., 25c; 5 lbs., \$1.00; 10 lbs., \$1.50; add postage.

SCARLET RUNNER—Ornamental and useful. The vine is graceful; flowers are of a brilliant scarlet, and the beans are of an excellent quality, either when shelled or in a dry state. 1 lb., 25c; 5 lbs., \$1.10; 10 lbs., \$2.00; add postage.

CASTOR—Used for medicinal purposes; very ornamental, plants and foliage being large and very tropical in appearance. Pkt., 10c; lb., 30c.; add postage.

NAVY—Lb., 20c, postpaid. Write for price in quantities, stating quantity wanted.

BEANS—Continued

Green Podded, Bush

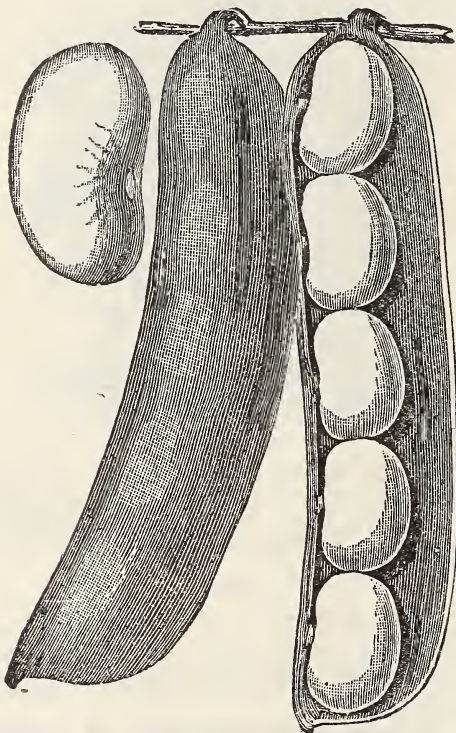
EXTRA EARLY RED VALENTINE—The pods are round, of good quality, thick, tender and stringless.

NEW STRINGLESS—Long, round, green pods, stringless; tender, brittle and of finest flavor. While more hardy to withstand frosts, yet is as tender to cook as any wax pod bean.

These two varieties: 1 lb., 25c; 5 lbs., \$1.15; 10 lbs., \$2.25; add postage.

BROAD WINDSOR—Stock erect, strong and shrubby. The bean is large, broad and flat. 1 lb., 20c; 5 lbs., 75c; 10 lbs., \$1.25; add postage.

Limas, Bush



Burpee's

BURPEE'S—It grows vigorously to a height of 18 to 20 inches, forming a circular bush, 2 or 2½ feet in diameter, yielding from 50 to 150 fine pods.

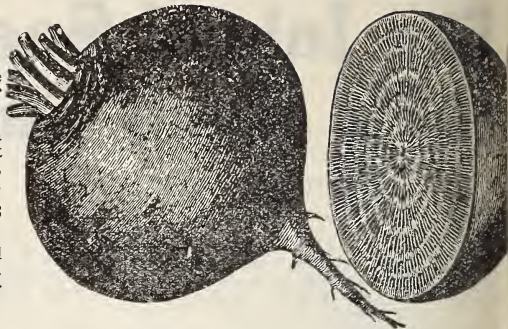
HENDERSON'S—Is very compact, bush form, from 15 to 18 inches high, and produces enormous crops of delicious, well-flavored beans.

Both varieties: 1 lb., 20c; 5 lbs., 90c; 10 lbs., \$1.75; add postage.

Beets

CULTURE—The soil should be deep, rich and mellow, plowed deep and harrowed until very fine. Drop about one inch deep in drills 12 to 18 inches apart, and when well up thin to four or six inches. The tops of the young beets can be used for greens.

DETROIT DARK RED TURNIP—A fine beet for bunching for market; tops exceptionally small and uniformly upright. The



Detroit Dark Red Beet

roots are perfect turnip-shaped with small tap-roots. One of the deepest red beets. Quality is of the finest; sweet and tender; best beet for home garden.



Early Blood Turnip

EARLY BLOOD TURNIP—Roots turnip shaped, deep crimson, tender and sweet.

EXTRA EARLY EGYPTIAN—The earliest sort; rather flat. Best variety for forcing. Small, symmetrical, deep blood color.

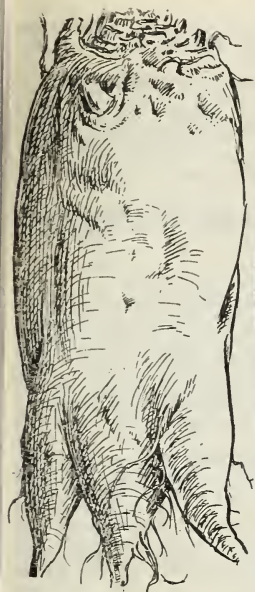
ECLIPSE—Makes rapid growth, top small, quality fine, larger than Egyptian, but not so deep a red in color.

IMPROVED HALF-LONG BLOOD—An old and popular variety, especially desirable for autumn and winter use.

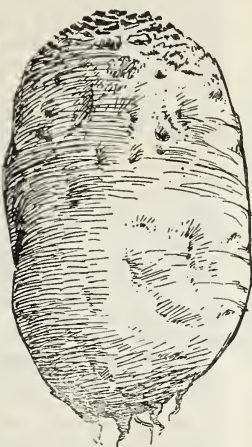
All the different varieties of beets unless otherwise marked: Fkt., 5c; oz., 10c; ¼ lb., 25c; ½ lb., 40c; 1 lb., 85c; postpaid. At purchaser's expense, 1 lb., 75c; 5 lbs., \$3.50; 10 lbs., \$6.50.

SWISS CHARD OR SEA KALE—This variety does not produce an edible root like the regular garden beet, but is highly esteemed for the broad, white leaf stalks and midribs, which are cooked and served in the same manner as asparagus, making a most delicious vegetable. The leaves are also cooked like spinach. Fkt., 5c; oz., 10c; ¼ lb., 35c; ½ lb., 60c; 1 lb., \$1.10.

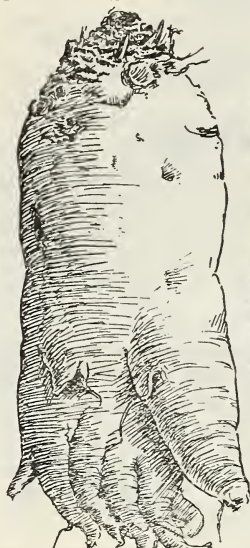
MANGEL WURTZELS



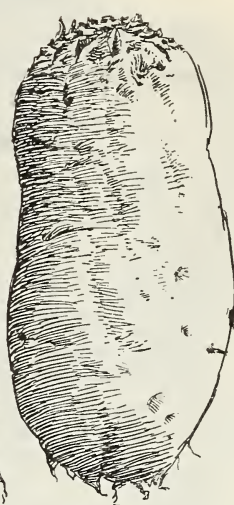
Mammoth Long Red



Golden Tankard



"Sludstrup"



"Eckendorf"

The great importance of growing Mangel Wurtzel and Sugar Beets for stock feeding is becoming more and more apparent to the progressive farmer, on account of their immense yield, and their fine feeding qualities. In order to secure seed from the very best types, we are contracting with European growers that are looked upon by their competitors as real experts. This seed costs us more than seed from the ordinary strains grown by ordinary growers, but we have always believed that quality is of more importance than price, and judging from the increase in our sales each year, we are convinced that the farmers are recognizing and appreciating the high quality of these seeds.

All varieties of Mangel Wurtzel and Sugar Beets: oz., 10c; $\frac{1}{4}$ lb., 25c; $\frac{1}{2}$ lb., 35c; lb., 60c; postpaid. At purchaser's expense, 1 lb., 50c; 5 lbs., \$2.25; 10 lbs., \$4.00.

DANISH SLUDSTRUP—The Danish Government encourages the growing of root crops by offering certificates of merit to growers who select and produce sorts which are of distinctive value. Sludstrup is considered the best of all mangels, having been awarded first class certificate. In color it is reddish-yellow and of a distinct type. It contains the largest per cent of nutriment found in any sort. It is very hardy, grows well above ground and is easily pulled.

GIANT RED ECKENDORF—A very popular variety. The roots are smooth, long and cylindrical in shape, very much like the tankard mangels. They are very heavy, weighing up to 15 and 20 pounds each. The flesh is firm, crisp and solid, white in color and of high feeding value. This variety is easily harvested, a large proportion growing above ground.

IMPROVED GOLDEN TANKARD—A special feature is the rich, deep yellow color of the flesh, differing in this respect from other Mangels, surpassing them in milk-producing qualities. The roots are of large diameter, tapering quickly at the bottom, which is quite broad, with only a small tap-root. It grows largely above the soil and is easily harvested. It yields an enormous bulk on good land, and can be grown closely in rows.

Sugar Beets

KLEIN WAUZLEBEN—This variety has proved to be a very valuable sort, on account of its richness in saccharine matter, thus demonstrating its superiority for feeding purposes. Roots rather long, slender, growing into the ground. A great yielder.

NEW MANGEL, HALF SUGAR—A new variety, very much more valuable for feeding purposes than the old sorts, it being very much richer. In addition to this, the size and form have been improved until it yields as much per acre as the best Mangels, and twice

as much per acre as the rich sugar beet seed; is much easier handled, keeps better and is in every way most valuable to the farmer. Roots large, oval in form, very smooth, with few rootlets; light pink or rose color, with small top.

All varieties of Mangel Wurtzel and Sugar Beets: oz., 10c; $\frac{1}{4}$ lb., 25c; $\frac{1}{2}$ lb., 35c; lb., 60c; postpaid. At purchaser's expense, 1 lb., 50c; 5 lbs., \$2.25; 10 lbs., \$4.00.

BRUSSELS SPROUTS

BRUSSELS
SPROUTS

Cultivated for the small heads that grow in considerable numbers from the main stem. It is a delicacy much esteemed by some. Sow in seed bed middle of spring and transplant and manage as winter cabbage. Pkt., 5c; oz., 20c; 2 oz., 35c; $\frac{1}{4}$ lb., 60c.

BROCCOLI

Sow early in spring. Transplant and cultivate the same as cabbage. The broccoli is similar to the cauliflower.

LARGE WHITE MAMMOTH—Pkt., 5c; oz., 40c; 2 oz., 90c; ¼ lb., \$1.50.

Cabbage

Cabbage is recognized as a good paying crop. The cost of seed per acre being so little, it would be poor economy to buy inferior seed because it could be purchased a little cheaper. Our seed is grown for us by the most reliable growers in the most favorable locations, and with the sole object in view of securing the purest seed of the best types of the various varieties.

We want to call special attention to four varieties—

CLOVER LEAF COPENHAGEN MARKET.

CLOVER LEAF DANISH SUMMER BALL HEAD.

CLOVER LEAF DANISH BALL HEAD.

CLOVER LEAF ROUND HEAD.

In the cabbage family these four varieties are specially recommended, and we take just pride in the perfection of the types we have secured, and have full confidence that they will prove to our customers all we have claimed them to be.

CULTURE—For early cabbages sow the seed in a hot-bed in March or April, covering the seed from ¼ to ½ an inch deep and, when big enough, transplant to another bed. As soon as the ground is in good condition transplant, outside, in rows 2 feet apart and 15 to 20 inches in the row.

First Early



Early Jersey Wakefield

EARLY JERSEY WAKEFIELD—The earliest and hardest heading of extra early cabbages. Most gardeners depend upon it for the bulk of their extra early crop. Heads conical, very compact, solid and of excellent quality. The thick, stout leaves and compact habit make it the best sort for very early setting. Pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 80c; 1 lb., \$1.50.

CHARLESTON OR LARGE WAKEFIELD—Larger and a little later than the Early Jersey Wakefield, but having the same general shape, except that it is less pointed. Pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 80c; 1 lb., \$1.50.

EARLY WINNINGSTADT—A very desirable kind, having conical, solid heads; a sure header under almost any condition, and keeps

better than most early varieties. Pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 80c; 1 lb., \$1.50.

HENDERSON'S EARLY SUMMER—About 10 days later than the Jersey Wakefield. The head is round, and the largest of the early kinds; can be set close in the row as the outer leaves are small. It remains long without bursting, is firm and of the best quality. Pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 80c; 1 lb., \$1.50.

CLOVER LEAF DANISH SUMMER BALL HEAD—The Danish Summer Ball Head cabbage is taking the place among the early varieties that the Danish Ball Head holds among the later sorts. It is a second early, extremely hard, long-keeping and of superb quality. It resembles the Winter Ball Head quite closely, excepting that it is smaller and slightly flat on top. It has traces of curliness on the outside leaves and delicate flavor that suggests Savoy blood. Color is light green, very small, with fine ribs in the leaves. Grown for us in Denmark under special contract. Pkt., 10c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.35; 1 lb., \$2.50.

GLORY OF ENKHUIZEN—A comparatively new second early variety, very sure heading and of excellent quality. Plant of vigorous growth, with large, rather spreading outer leaves which are noticeably curved. Heads globular or very nearly round, very solid and of large size for so early a variety. Pkt., 10c; oz., 25c; 2 oz., 40c; ¼ lb., 65c; ½ lb., \$1.10; 1 lb., \$2.00.

ALL-HEAD EARLY—It is among the earliest of the large cabbages. It is fully one-third larger than the Early Summer. The deep flat heads are remarkably solid and uniform in color, as well as shape and size. It is very tender and of fine quality. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.00; 1 lb., \$1.75.



Copenhagen Market

CLOVER LEAF COPENHAGEN MARKET—This superb new cabbage is undoubtedly without a rival as the finest large round-headed early cabbage in cultivation. The type is thoroughly fixed, the heads maturing all at the same time (this being a great consideration to market gardeners, entailing less labor in harvesting the crop, and allowing the ground to be cleared at the first cutting). The heads average about 10 pounds each in

CABBAGE—Continued

weight, are very solid, with small core and of fine quality. It matures as early as Charleston Wakefield, and will give a much heavier yield per acre than that popular variety. The plant is short-stemmed, the heads being produced almost on the ground level. The leaves are light green, rather small, saucer-shaped, and always tightly folded. The plants, therefore, can be set closer than is usual with varieties of similar size. Grown for us in Denmark under special contract. **Pkt., 10c; oz., 50c; 2 oz., 85c; ¼ lb., \$1.50; ½ lb., \$2.75; 1 lb., \$5.00.**

Late or Fall Sorts

SELECTED LATE FLAT DUTCH—A low-growing variety; heads large, bluish green, round, solid, broad and flat on top; an excellent fall and winter variety and a good keeper; it is a sure header. **Pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 80c; 1 lb., \$1.50.**

PREMIUM LATE DRUMHEAD—A sure heading sort, which in good, rich soil will grow to an enormous size and on poorer soils will give good-sized heads which are very compact, solid and of excellent flavor. **Pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 80c; 1 lb., \$1.50.**

SUREHEAD—A popular sort for main crop; never fails to form uniformly large, solid heads, which are tender and of fine, sweet flavor. An excellent keeper and a good shipper. **Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.00; 1 lb., \$1.75.**

DRUMHEAD SAVOY—The best variety of Savoy or crumpled leaf cabbage. The plant is vigorous, with short stem, has densely crumpled leaves and when touched by frost is sweet, delicate and delicious. The head is large and very solid. **Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.10; 1 lb., \$2.00.**

ROCK RED—Best red sort, much used for pickling. **Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 65c; ½ lb., \$1.10; 1 lb., \$2.00.**

CLOVER LEAF HOLLAND OR DANISH BALL HEAD—Short stemmed. Genuine Danish grown stock. Most remarkable late cabbage yet produced. This is one of the hardest cabbages in cultivation, and endures both frost and drought that would destroy other varieties. Plants very hardy and compact; leaves very smooth, but thick; heads of medium size, round and very solid, being the hardest heading cabbage and of the very best quality. Matures quite late, keeps well and is considered by many the best cabbage

**DANISH BALL HEAD.**

to hold over for spring markets. **Pkt., 10c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.35; 1 lb., \$2.50.**

CLOVER LEAF DANISH ROUND HEAD—An earlier, shorter stemmed, improved strain of the Danish Ball Head cabbage. The heads are hard and very solid and mature about two weeks in advance of the Ball Head. They also average a little larger and heavier. The inner leaves are blanched almost pure white, are of sweet flavor, crisp and tender. Grown for us in Denmark under special contract. **Pkt., 10c; oz., 30c; 2 oz., 50c; ¼ lb., 90c; ½ lb., \$1.50; 1 lb., \$2.75.**

DANISH BALL HEAD—Ordinary strain. This is the strain usually offered by ordinary seed houses, but is not nearly so good or reliable as our Clover Leaf strain. We specially recommend our Clover Leaf strain, as it has always taken first place when grown in competition with other strains. **Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 50c; ½ lb., 90c; 1 lb., \$1.75.**

Cauliflower

CAULIFLOWER is one of the best paying crops that can be sown. The seed is among the most expensive. Perhaps there is not any other seed that varies so much in price. It is so expensive that some growers save seed from all their plants, while other make a very careful selection, using only perfect plants from which to save their seed. It therefore follows that seed saved by the latter plan will be much more expensive, but much better than seed saved by the former plan. Our seed is grown by Denmark experts who have made this a study and won for themselves a reputation for growing the very best seed.

CULTURE—The soil for cauliflower should be like that for cabbage, but is better if made richer than is ordinarily used for that crop. It should be borne in mind that cauliflower will not head up good in hot, dry weather, and hence the sowing should be so regulated as to bring it to maturity either before the hot summer weather sets in or not until the cooler weather of the fall. After the heads begin to form, draw the leaves over and pin or tie them together to protect the heads from the sun and keep them white.

CLOVER LEAF EARLY SNOWBALL (Best Imported Strain)—This is an improved extra early strain of dwarf, compact growth. Under favorable circumstances nearly every plant



CAULIFLOWER—Continued

will make a fine, solid head of good size. It is valuable for both early and late. **Pkt., 10c; ½ oz., \$1.25; oz., \$2.25; 2 oz., \$4.00; ¼ lb., \$7.00.**

DANISH GIANT OR DRY WEATHER—Large leaved, with pure white compact heads. It is truly a first-class cauliflower and is specially adapted to dry locations and to resisting the effects of drouth. Two weeks later than the Snowball, when planted at same time. **Pkt., 10c; ½ oz., \$1.25; oz., \$2.25.**

AUTUMN GIANT—A distinct and valuable late variety. The heads are reasonably large, beautifully white, firm and compact, and, being well protected by foliage, remain for a long time fit to use. The plants should be started and transplanted early in the season to insure their full development. **Pkt., 5c; oz., 60c; 2 oz., \$1.10; ¼ lb., \$2.00.**

Celery

It is a fact not generally recognized by the planter, and not generally referred to by seed houses, that there are only a few places that produce celery seed of such quality that would warrant it being sown. This is accounted for by the fact that it takes a rare and peculiar combination of soil, climate and conditions to produce this seed to perfection; hence it follows that the seed produced under these favorable conditions will be much higher in price than the ordinary seed, especially when we remember that such favorable conditions are limited. We import our seed from France, where it is grown by one of the best growers under the most favorable conditions.

CULTURE—Sow in light, rich soil, in shallow drills, and cover the seed lightly with finely sifted mold. When the plants are 5 to 6 inches high transplant to rows 3 to 4 feet apart, according to the variety, allowing 8 inches between the plants in the row. Cultivate freely and earth up to blanch the stems, pressing the soil firmly around the plant almost to the top, care being taken not to cover the tops of the center shoots.



White Plume Celery.

WHITE PLUME—A new variety; popular on account of its naturally white leaf stalks, which require less blanching than the other kinds. It is early, a fine market sort, and the variety mostly used by gardeners. **Pkt., 5c; oz., 25c; 2 oz., 45c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.**

GOLDEN SELF-BLANCHING—It is of a rich, golden tint when ready for the table; very handsome and of excellent quality. **Pkt., 10c; oz., 75c; 2 oz., \$1.40; ¼ lb., \$2.00.**

GIANT PASCAL—A standard sort for later or winter market; large fine stalks; when

blanched, of a deep golden yellow. **Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 50c; ½ lb., 85c; 1 lb., \$1.50.**

CELERIAC OR TURNIP-ROOTED—Grown exclusively for its roots, which are turnip-shaped, very smooth, tender and marrow-like. The roots are cooked and sliced; used with vinegar they make an excellent salad. **Pkt., 5c; oz., 20c; ¼ lb., 60c.**

Carrots

Too many growers have the idea that any sort of carrot seed is good enough, but this is very erroneous and fatal in securing best results. Our carrot seed has always been given special attention, as quality has always been our first consideration. The results are shown in our yearly largely increased sales.

CULTURE—The carrot, like other root crops, delights in a sandy loam, deeply tilled. For early crops, sow in the spring as soon as the ground is in good working order; for late crops sow any time until the middle of June.



Danvers Half-Long

Carrots—Table

EARLY SCARLET HORN—A very early variety. Recommended for the very early market and family garden. Texture fine; very delicate in flavor. **Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 35c; ½ lb., 55c; 1 lb., \$1.00.**

IMPROVED DANVERS HALF-LONG—A first-class carrot for all soils. The root is of a rich, dark orange color and grows very smooth and handsome. Very productive, producing as much tonnage to the acre as the longer field sorts, and is much easier harvested.

CHANTENAY—Early, scarlet color, stump rooted, broad thick shoulder, heavy cropper. Fine quality. In shape and appearance it takes a place between the Oxheart and the Danvers Half-Long.

IMPROVED LONG ORANGE—Uniformly a deep orange color, growing a long, smooth symmetrical carrot. Remarkable for the absence of the detractive side roots and divisions at the point. Tremendous yielder and of a rich, sweet flavor; will retain its delicious flavor all winter.

OXHEART OR GUERANDE—A thick carrot, five or six inches long and very blunt at the lower extremity. It grows very rapidly and the root attains a weight or more than a pound. It is tender and of good flavor, and a variety that we can recommend to all market gardeners.

All varieties of table carrots unless otherwise quoted: **Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 40c; 1 lb., 75c; postpaid. At purchaser's expense, 1 lb., 65c; 5 lbs., 3.00; 10 lbs., \$5.50.**

Carrots—Stock



Oxheart

LARGE WHITE BELGIAN—Grows one-third out of the ground; root pure white, green above ground with small top; flesh rather coarse; the roots, on light, rich ground, grow to a large size, and are extensively grown for stock feeding.

MASTADON—The flesh is white, crisp, solid and very sweet in flavor. Roots half long, smooth, very heavy at the shoulder; an immense yielder.

YELLOW GIANT—This carrot is a half-long variety, with an immense broad shoulder. The roots penetrate less than one-half the depth into the ground. The color is a bright yellow, and is perfection for giving the proper color to your butter. All stock carrots: Oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 40c; 1 lb., 70c; postpaid. At purchaser's expense, 1 lb., 60c; 5 lbs., \$2.75; 10 lbs., \$5.00.

Cucumbers

CULTURE—Plant in hills about four feet apart each way; thin out to four of the strongest plants in each hill; they succeed best in warm, moist, rich, loamy soil. The cucumbers should be gathered when large enough for use, whether required or not; if left to ripen, it destroys their productiveness.



EARLY CLUSTER—A short, prickly variety; usually growing in clusters. Is a prolific bearer, and one of the earliest; flavor excellent.

COOL AND CRISP—A strain of the White Spine, but longer and more cylindrical; very early and exceedingly prolific. While it is esteemed most highly as a pickling sort, it is one of the very best for slicing, being tender, crisp and of fine flavor.

EARLY SHORT GREEN, OR EARLY FRAME—A vigorous and productive variety, producing fruit of medium size and regular form; flesh crisp and tender; excellent for the table or pickling.

EARLY WHITE SPINE—One of the best sorts for trade use, fruiting early and abundantly; fruit uniformly straight and handsome; light green, with a few white spines.

EVERBEARING—This is not only a very early variety but is also extremely prolific. If the fruits are kept gathered, vines will continue in bearing throughout the season. The fruits are of medium size and rich dark green color, average from four to five inches in length by an inch and a half in diameter. Owing to its great productiveness it is an excellent variety to plant for producing small pickles. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00; postpaid. At purchaser's expense, 1 lb., 90c; 5 lbs., \$4.25; 10 lbs., \$8.00.

THE NEW DAVIS PERFECT—This cucumber has an ideal shape and a beautiful dark green color, which it holds extremely well during the slicing season. Its eating qualities are unsurpassed, both because of its fine flavor and its small number of seeds, which, during the slicing period, are so small and tender as to be practically unnoticed; believe it will produce more fruit than any other variety ever grown. Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 50c; 1 lb., 90c; postpaid. At purchaser's expense, 1 lb., 85c; 5 lbs., \$4.00; 10 lbs., \$7.50.

LONG GREEN—Produces dark green fruit from 10 to 14 inches long. Flesh solid, crisp and of fine quality. Fine for slicing and pickling. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 45c; 1 lb., 85c; postpaid. At purchaser's expense, 1 lb., 80c; 5 lbs., \$3.75; 10 lbs., \$7.00.

BOSTON PICKLING—This variety is very popular with our gardeners to grow for pickles. Fruit small, smooth, bright green and good quality. A great producer.

WEST INDIA GHERKIN—This variety used exclusively for pickling, a distinct species from the common cucumber. It is a vigorous grower and consequently should be planted 6 feet apart. The fruit is very small, almost round and closely covered with spines. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.10; 1 lb., \$2.00; postpaid.

JAPANESE CLIMBING—A sort of pole cucumber, its name being due to its tendency to climb and bear its fruit up from the ground, if afforded support; fruit large and thick. Pkt., 5c; oz., 15c.

All varieties of cucumbers unless otherwise quoted: Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 45c; 1 lb., 80c; postpaid. At purchaser's expense, 1 lb., 75c; 5 lbs., \$3.50; 10 lbs., \$6.50.

OUR SEEDS are selected with the greatest care, and there are none better on the market : : : : :

DO NOT FORGET TO ADD POSTAGE

Corn---Sweet

CULTURE—Sweet corn should not be planted deeper than one inch to one inch and a half, as it is liable to rot in the ground, especially if the ground has not become warm. Hoe often, drawing the earth against the stems and break off the side shoots.



First Early

PEEP O' DAY—For earliness, flavor, sweetness and productiveness it is ahead of any other early white sweet corn. It will prove a money-maker for the market gardener, and a valuable addition to our list of corn for our short western summers. 1 lb., 15c; 2 lbs., 25c; 5 lbs., 60c; 10 lbs., \$1.10; add postage.

GOLDEN BANTAM—Of extreme hardness, this can be planted earlier than any other true sweet corn, and will then produce the earliest supply of ears for the table. The stalks grow from three and one-half to four feet in height and produce one or two good ears on each stalk. The ears are about six inches in length, completely filled with eight rows of golden-yellow grains, extending to the rounded tip. The flavor is exceptionally rich and sugary, "the sweetest of all."

HOWLING MOB—This variety has become very popular on account of its earliness, and its possessing the sweet flavor of the later varieties. The stalks are of strong, vigorous growth, four and one-half to five feet in height, have abundant foliage and generally produce two fine ears to each stalk. The ears measure seven to nine inches in length with twelve or fourteen rows of good-sized pearly-white grains. They are covered with a heavy husk which extends well out from the tip of the ears and affords good protection from the greenworms which are so often destructive to early varieties.

Golden Bantam and Howling Mob: 1 lb., 20c; 5 lbs., 75c; 10 lbs., \$1.25; add postage.

EARLY MINNESOTA—A splendid standard variety; grains sweet and tender; ears are of good size and eight and ten rowed; very productive. 1 lb., 15c; 2 lbs., 25c; 5 lbs., 60c; 10 lbs., \$1.00; add postage.

WHITE COB CORY—An early, old established variety; ears six inches long, eight rowed. A splendid market garden variety and excellent for the table. 1 lb., 15c; 2 lbs., 25c; 5 lbs., 60c; 10 lbs., \$1.10; add postage.

Medium Early

EARLY EVERGREEN—This fine variety yields large, handsome, ten and twelve rowed ears, averaging about nine inches in length. It is very sweet, has a fine flavor and remains tender a remarkably long time. 1 lb., 15c; 2 lbs., 25c; 5 lbs., 50c; 10 lbs., 90c; add postage.

MEXICAN WHITE—Very sweet and delici-

ous; stalks grow about four and a half feet high; ears eight or nine inches in length an usually eight rowed.

BLACK MEXICAN—This corn, when in condition for the table, cooks remarkably white but the ripe grain is black or bluish black. It is surpassed by none in tenderness and fin quality.

Black and White Mexican: 1 lb., 15c; 5 lbs., 30c; 5 lbs., 55c; 10 lbs., \$1.00; add postage.

COUNTRY GENTLEMAN—A favorite second early or main-crop variety with all private gardeners for its tenderness, delicacy, small deep grains, and sweetness. The ears are of fair size, frequently three or four to the stalk. 1 lb., 15c; 5 lbs., 65c; 10 lbs., \$1.25; add postage.

Late

STOWELL'S EVERGREEN—The standard main crop variety. Large, well formed ears deep grained; very sweet and sugary. It is hardy and productive and altogether the best late kind. 1 lb., 15c; 2 lbs., 25c; 5 lbs., 50c; 10 lbs., 90c; add postage.

Corn---Field

Corn growing is becoming more and more a staple product in the Northwest and experiments have shown that with carefully prepared fertile soil the difference in seed has made a difference in the yield of double the bushels per acre. It has been fully demonstrated that home grown seed will mature a great deal better than seed secured from the East. We therefore draw special attention to our home grown Minnesota King and our home grown White Cap Dent.

Dent Yellow

MINNEOSTA KING (Home Grown)—We regard this corn in some respects as the most valuable early corn for the Inland Empire. It seems to possess a faculty of growing right along and making a crop during weather and under conditions that would ruin other varieties. In appearance the Minnesota King is remarkably distinct, being a half yellow dent; the kernels are very broad and are a rich golden color.

WHITE CAP—This is home grown, having been continuously grown on a farm in the vicinity of Marcus for the past six years. The experience of this progressive farmer has been that this variety is much more profitable than any other variety he has tried. It ripens early and matures well. Stalks grow to a height of 10 feet and produce 14 and 18 rowed ears that are solid and handsome. This being fully acclimated, will mature under any reasonable conditions.

It's early. Productive. Fully acclimated. Very highly recommended. A sure cropper.

MINNESOTA NO. 13—The commanding points of excellence which place Minnesota No. 13 Corn at the head of all yellow dent varieties for Northern planting are: its earliness, its enormous productiveness, its adaptability to a great variety of soils and climates. The ears are of handsome appearance, bearing 16 to 20 rows of bright, rich yellow, smooth, wedge-shaped kernels packed closely on the cob from butt to tip. The ears average eight inches in length and are borne usually

CORN—Continued

two on a stalk. No corn excels in quality the Minnesota No. 13; the cobs are well filled and the individual kernels plump and of good color. The stalks grow to a height of seven feet and being leafy make excellent and very nutritious fodder. A variety of corn which shows such valuable characteristics is an acquisition on any farm, especially for planting in the Northwest where early frosts are common.

Minnesota King, White Cap Dent and Minnesota No. 13: Lb., 10c; 5 lbs., 45c; 10 lbs., 75c; 25 lbs., \$1.50; 50 lbs., \$2.50; 100 lbs., \$4.50; add postage.

PRIDE OF THE NORTH—This is a standard early variety of corn in the East, but is not sure to mature here; in fact, we have been unable to procure any home-grown seed. From the fact that it produces a large amount of fodder and being early enough to get in proper condition for ensilage, it has taken the lead over all other corns for this purpose. Lb., 10c; 5 lbs., 35c; 10 lbs., 60c; 25 lbs., \$1.25; 50 lbs., \$2.00; 100 lbs., \$3.50; add postage.

Flint Yellow

SQUAW—Extremely early, and rather dwarf. Produces an ear from 7 to 8 inches in length and is a heavy yielder. 2 lbs., 25c; 5 lbs., 50c; 10 lbs., 90c; 25 lbs., \$1.75; 50 lbs., \$2.75; 100 lbs., \$5.00; add postage.

EARLY EIGHT-ROWED, OR EARLY CANADA—The great Yellow Flint corn—the corn for the extreme north. The greatest of all the Flint varieties. Ears long, of rich yellow color. Will prove to be of the greatest value to the farmers of the far north. Ripens earlier than any of the Flints. Lb., 10c; 5 lbs., 40c; 10 lbs., 70c; 25 lbs., \$1.50; 50 lbs., \$2.50; 100 lbs., \$4.50; add postage.

Dent White

EARLY WISCONSIN WHITE—The stalks grow to an average height of 8 feet and are thickly furnished with foliage close to the ground. The ears are large, with 16 to 20 rows of large, deep kernels, which are closely set on a small white cob. Lb., 10c; 5 lbs., 45c; 10 lbs., 75c; 25 lbs., \$1.50; 50 lbs., \$2.50; 100 lbs., \$4.50; add postage.

WHITE WINDUS—This variety is a production of the Washington State College of Pullman and has been thoroughly tested by them and is recommended for its earliness, productiveness and its dependability in producing a crop each year. We have secured our seed from a large orchard company that has been growing different varieties of corn between the trees, and after several years of experimenting they have discarded all other varieties and will now grow this exclusively. Lb., 15c; 5 lbs., 65c; 10 lbs., \$1.00; 25 lbs., \$2.00; 50 lbs., \$3.25; 100 lbs., \$6.00; add postage.

CALICO—This variety has been grown in Washington for a number of years, with very satisfactory results. It is very productive and a sure cropper, and while not quite as early as some of our other varieties of home grown corn, it is fully acclimated to this state, and ranked as an early medium variety. Price: Lb., 10c; 5 lbs., 45c; 10 lbs., 80c; 25 lbs., \$1.75; 50 lbs., \$3.00; 100 lbs., \$5.50; add postage.

POP

WHITE RICE—The best corn for popping and for the general market; early, white pointed kernels. Lb., 15c; 10 lbs., \$1.00; add postage.

CRESS

WATER—A delicate, pungent salad plant, very agreeable alone or mixed with other salads. Entirely distinct from common cress, thriving only where its roots are submerged. Sow the seed thinly along the banks of any

shallow stream early in the spring. Pkt., 5c; oz., 30c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.25.

PEPPER GRASS (Curled)—The leaves, when young, have a warm, pungent taste, and are used as a salad, either alone or mixed with other salad plants. As they are milder and more tender when young, the seed should be sown at intervals of 10 to 15 days, making the first sowing as soon as the ground can be prepared. Pkt., 5c; oz., 10c; ¼ lb., 20c; ½ lb., 30c; lb., 50c.

ENDIVE

This is one of the most refreshing and attractive of all autumn and winter salads. It is most appetizing when served mixed with lettuce, with French dressing. Sow seed from middle of June to last of August.

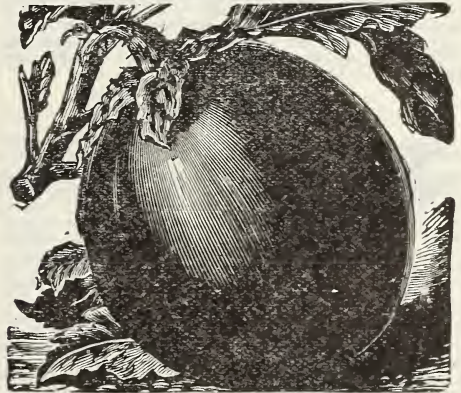
LARGE GREEN CURLED—A fine market sort; tender, green leaves; blanch white; hardy.

BROAD LEAVED BATAVIAN—Leaves are broad, thick, green, more or less twisted and waved with white mid-ribs. It forms large hearts, which when blanched form one of the best winter salads. Crisp, tender and fine flavor.

Both varieties of Endive: Pkt., 5c; oz., 10c; ¼ lb., 30c; ½ lb., 55c; lb., \$1.00.

EGG PLANT

CULTURE—Sow in hotbeds very early in the spring; transplant to 2 or 3 feet apart in very rich, warm ground. Do not plant them outside till night have been warm, as the least frost or cold nights will greatly retard their growth.

**Improved New York**

BLACK BEAUTY—This beautiful egg plant is 10 days earlier than the New York Improved. The fruit is broad and thick, of most attractive form and does not fade or change to a lighter color at the blossom end. The fruits set freely and are ready for market early, so the crop can be gathered before danger of frost. Pkt., 10c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25; ½ lb., \$2.25; 1 lb., \$4.00.

NEW YORK IMPROVED—This is a standard variety, both for market and home garden; a favorite everywhere. Pkt., 10c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.25.

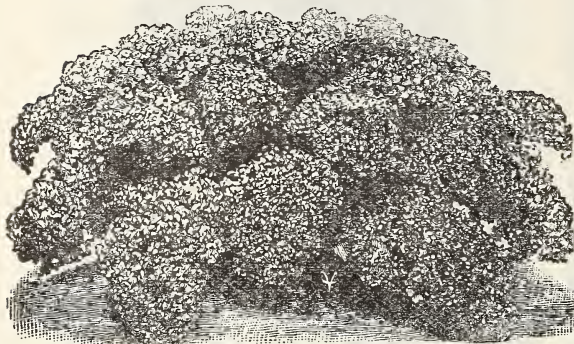
GARLIC

Has a bulbous root, with a strong, penetrating odor and flavor. Belongs to the onion family and cultivated much in the same manner. We cannot offer seed, but can supply the bulbs or sets.

This is extensively used in many places for flavoring soups, stews, etc. The sets should be planted early in spring and treated like onions. **Lb., 30c; add postage.**

KALE OR BORECOLE

Kale, or Borecole, is a kind of cabbage that does not form a close and solid head, but a cluster of beautifully curled or wrinkled leaves that are tender and of excellent flavor. It requires the same treatment as cabbage, and is very hardy, being improved by frost.



Kale

TALL GREEN CURLED SCOTCH—Produces an abundance of dark green, curled leaves. Very hardy.

DWARF GREEN CURLED SCOTCH—Plant low and compact, with large, bright, deep green leaves, curled, cut and crimped until the whole plant resembles a bunch of moss.

Both varieties of Kale: **Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 50c; lb., 90c.**

THOUSAND HEADED—The great demand for this wonderful forage plant proves it to be the most valuable green feed for dairy and stock men. Endorsed by agricultural colleges and government stations. **Pkt., 5c; oz., 10c; ¼ lb., 20c; ½ lb., 35c; lb., 60c.**

KOHL-RABI



The Kohl-Rabi is a vegetable intermediate between the cabbage and turnip, and combines the flavor of each. The edible part is a turnip-shaped bulb. When used for the table this should be cut when quite small, as it is then very tender and delicate, but if allowed to reach its full size it becomes tough and stringy.

EARLY WHITE VIENNA—The earliest and best for forcing; very

tender; excellent for table use. **Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.00; lb., \$1.75.**

ONE GREAT CAULIFLOWER Clover Leaf Snowball

Lettuce

CULTURE—Sow every month as soon as the ground is open, in drills one foot apart, covering the seeds about one-quarter of an inch deep and thinning out to 6 or 8 inches in the row. For a cut salad sow thicker and do not thin out. They do best in rich and moist soil.

Early and Forcing

GRAND RAPIDS (Seed Black)—As a lettuce for greenhouse forcing, this variety undoubtedly stands at the head of the list, being of quick growth, little liable to rot and standing for some days after being ready to cut. This plant is upright and forms a loose head or cluster of large, bright leaves, slightly crimped and blistered and rather thin.



BIG BOSTON—It is an early variety of head lettuce either for forcing or open ground. It forms large, solid heads of a good light green color, and is very slow to go to seed. The leaves are beautifully marked and blistered and very crisp and tender and of excellent flavor.

Grand Rapids and Big Boston: **Pkt., 5c; oz., 10c; ¼ lb., 35c; ½ lb., 60c; lb., \$1.10.**

Loosehead or Cutting

PRIZEHEAD (W. S.)—Large, loose-headed sort. The leaves are tinged with brown, very heavy.

EARLY CURLED SIMPSON OR SILESIA—One of the best curled varieties for early sowing out of doors. Very popular with market gardeners and private planters.

BLACK-SEEDED SIMPSON—Very large, loose heads of curly, golden-yellow, leaves, which are thin and tender. It stands summer heat splendidly and is valued for frame culture.

Prizehead, Early Curled and Simpson: **Pkt., 5c; oz., 10c; ¼ lb., 35c; ½ lb., 60c; lb., \$1.10.**

Heading

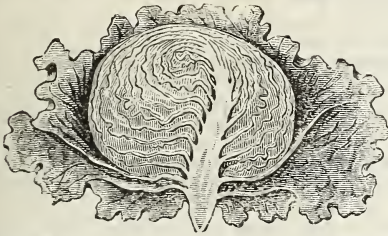
SALAMANDER—A bright green attractive summer variety, producing large, solid heads, very smooth, tender leaves, and of the finest quality.

IMPROVED HANSON—It is a fine heading variety of the largest size; solid, sweet, tender and crisp throughout, and entirely free from any bitter taste.

CALIFORNIA CREAM BUTTER OR ROYAL SUMMER CABBAGE—A very reliable heading sort, with glossy, deep green leaves, the outer ones slightly spotted or splashed with brown. The inner leaves form a large, very solid head, rich light yellow in color, very thick and tender and buttery.

The foregoing three varieties of lettuce. **Pkt., 5c; oz., 10c; ¼ lb., 35c; ½ lb., 60c; lb., \$1.10.**

LETTUCE—Continued



ICEBERG—Has an unusually solid head. The white main ribs of the leaves curve toward the center, which keeps the interior thoroughly bleached. It is quickly growing and always crisp and tender.

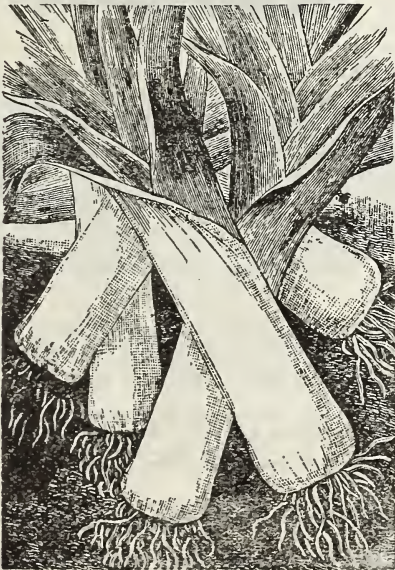
NEW YORK OR WONDERFUL—The mammoth heads are solid, heavy, beautifully blanched to a creamy white with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet. The New York is a hardy, rapid grower, deep rooted and resistant to drought; a slow seeder and sure to head. **Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 45c; ½ lb., 75c; 1 lb., \$1.35.**

Cos

PARIS WHITE COS—The Cos Lettuce differs entirely in shape from other varieties, the head being elongated and of conical form, eight or nine inches in height and five or six inches in diameter. The outer coloring of this variety is yellowish green. To be had in perfection it requires to be tied up to insure blanching.

All lettuce unless otherwise quoted: **Pkt., 5c; oz., 10c; ¼ lb., 35c; ½ lb., 60c; 1 lb., \$1.10.**

LEEK



LARGE LONDON, OR SCOTH FLAG—This leek is generally considered more delicate than the onion for soup, etc. Sow in seedbed middle of spring; when the plants are three or four inches high, transplant them into rows wide enough apart to admit the hoe between them. **Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.35.**

MUSHROOM SPAWN

With intelligent care and good spawn, mushrooms can be made to pay handsomely. They can be successfully grown in a dry cellar or under the benches of a greenhouse, where the temperature can be kept from 50 to 60 degrees.



LAMBERTS PURE CULTURE—A new kind of spawn, without a

doubt the best. It comes in bricks, weighing about 20 ounces. These are broken up into pieces the size of a walnut and put into the bed one foot apart each way. **Brick, 25c; 5 bricks, \$1.00; add postage. Mailing weight, brick, 2 lbs.**

Illustrated book on Mushroom Culture, containing the latest methods of raising, preserving and cooking mushrooms, 15c, post-paid.

MUSTARD



MUSTARD is used alone as "greens" or with cress as salad. Sow any time in the spring, in rows.

SOUTHERN GIANT CURLED—Sweet flavor, pungent and succulent. **Pkt., 5c; oz., 10c; ¼ lb., 20c; ½ lb., 30c; 1 lb., 50c.**

WHITE ENGLISH—Leaves mild and tender when young; seeds yellow. **Pkg., 5c; oz., 10c; ¼ lb., 15c; ½ lb., 25c; 1 lb., 40c.**

Musk Melons

There is not anything more refreshing than a fine flavored musk melon or canteloupe. It may seem strange to some that the selection of the seed should have anything to do with this flavor. There is a flavor peculiar to each distinct variety, and this can only be obtained when the varieties are kept up to their well-known standard, and they can only be kept up to this standard by a very careful selection of the melons from which the seed is saved. Our growers have always this thought in mind, hence the seed furnished us by our careful and intelligent growers will give best results on account of its careful selection. In quality our seed is not to be compared with ordinary seeds, and if we should charge a little more than some other seed houses, bear in mind that we are giving full value.

CULTURE—The seed should not be planted until the soil has become thoroughly warmed, about corn-planting time. Plant five or six seeds to the hill, in hills four to six feet apart. Rich soil or well-rotted manure should be used in the hills.

Green-Fleshed Varieties

ROCKY FORD OR NETTED GEM is a new and most valuable introduction, and has attained in an incredibly short time a national reputation. It is of the Netted Gem type, oval in shape, averaging from four and one-

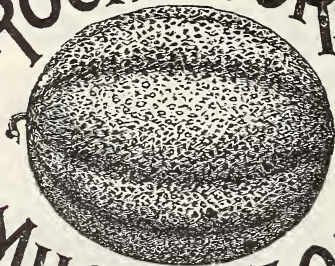
MUSK MELONS—Continued

half to five inches in length, of a delicious flavor, very fine and smooth grained flesh, of a light green color throughout.

This melon has proved to be very profitable, hence popular on account of its superior quality and its ready sale on the market.

Pkt., 5c; oz., 10c; ¼ lb., 25c; ½ lb., 45c; 1 lb., 85c. At purchaser's expense, 1 lb., 75c; 5 lbs., \$3.25; 10 lbs., \$6.00.

**THE CELEBRATED
ROCKY FORD
MUSK MELON
TRUE STOCK**

**HACKENSACK EXTRA EARLY IMPROVED**

—A selection from an improvement on the old Hackensack, and similar in shape and appearance; nearly as large and fully 10 days earlier; one of the finest for market gardeners; quality perfect.

PEACH OR GARDEN LEMON—The fruit is about the size of a large peach, oval shaped and of a bright orange yellow color, somewhat russeted. When it first ripens it is quite hard and has very little flavor, but they soon become mellow, and have a rich flavor. For sweet pickles, pies or preserving they are superb. **Pkt., 5c; oz., 25c.**

LARGE YELLOW CANTELOUPE—The fruit is large, oblong, slightly ribbed and coarsely netted. The flesh is light yellowish-green, very sweet, crisp and delicious. **Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.10.**

CASSABA—Large oblong melon, well ribbed thin skin, green flesh; prolific and of delicious quality; late maturing; good keeper. **Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.35.**

EARLY PROLIFIC NUTMEG—Fruit of medium size, slightly ribbed, globular. Skin dark green, becoming yellow when overripe, and nearly covered with broad, shallow netting.

POLLOCK'S RUST-RESISTANT—Mr. Pollock originated the melon bearing his name by selecting seed from a plant which had not rusted out of a field that the rust had destroyed. This point has been observed in selecting stock seed until the melon, while not being perfectly rustproof, is practically so. The main difference between it and the original old style, Rocky Ford, is more uniformity. **Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 45c; ½ lb., 75c; 1 lb., \$1.35.** At purchaser's expense, 1 lb., \$1.25; 5 lbs., \$5.50; 10 lbs., \$10.00.

All varieties of green fleshed musk melons not otherwise quoted: **Pkt., 5c; oz., 15c; ¼ lb., 35c; ½ lb., 50c; 1 lb., 90c.** At purchaser's expense, 1 lb., 80c; 5 lbs., \$3.65; 10 lbs., \$6.50.

Salmon-Fleshed Varieties

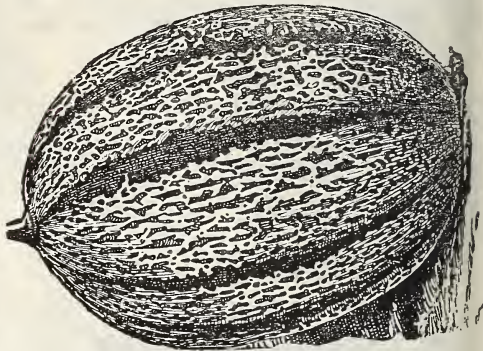
EMERALD GEM—This is a variety of excellent quality and of medium size. The skin, white-ribbed, is perfectly smooth and of a

deep emerald green color. The flesh is thick and of a deep salmon color, and ripens to the green rind. The flavor is very sweet and luscious. The vines are hardy and very prolific, and the melons mature extremely early.

OSAGE OR MILLER'S CREAM—The skin is very thin, of a dark green color and slightly netted. The flesh is of a salmon color, remarkably sweet, extremely thick, and delicious to the rind. It is also very productive. It is a remarkable keeper, and will stand shipping.

PAUL ROSE OR PETOSKEY—A successful cross between the Osage and Netted Gem. It combines the sweetness of the former with the fine netting of the Gem and is even a better shipper than that variety. The melons grow uniform in shape and size. The flesh is remarkably thick, making the melons very solid and heavy, and of a beautiful salmon or orange color; deliciously sweet and melting.

BURRELL GEM—Burrell's Gem has a tough thin rind, well arched ribs, covered with a closely interlaced gray netting; shape elongated, being about 4½ inches in diameter by 6 inches long, flesh of a reddish orange very thick, fine grained and spicy, seed held firmly in a triangular cavity. This is the secret of a good shipping melon. If the seeds shake loose easily a melon will quickly decay.



Burrell Gem

BANANA—Melons very slender and two or three feet long. A very fragrant variety, and if not picked until thoroughly ripe, of very good quality. Its flesh and flavor, as well as its shape, remind one of a great, luscious banana. **Pkt., 5c; oz., 25c.**

HOODOO—Sometimes sold as Ordway Queen. This is an orange fleshed variety of medium size, ideal as a shipping melon and a desirable mid-season sort for the home garden. The vines are vigorous, blight resisting and very productive. The fruits are uniformly of medium size. The netting is exceptionally fine and dense, extending over practically the entire surface. The rind is thin yet very firm, so that the melons arrive in perfect condition in distant markets. The flesh is very thick, firm, highly colored, of fine texture and delicious flavor. **Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.35.**

All varieties of salmon fleshed musk melons, unless otherwise quoted: **Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 35c; ½ lb., 55c; 1 lb., \$1.00.** At purchaser's expense, 1 lb., 90c; 5 lbs., \$4.00; 10 lbs., \$6.50.

**Clover Leaf Scratch Feed
has come to be known
as a Great Egg Producer**

DO NOT FORGET TO ADD POSTAGE

Watermelons

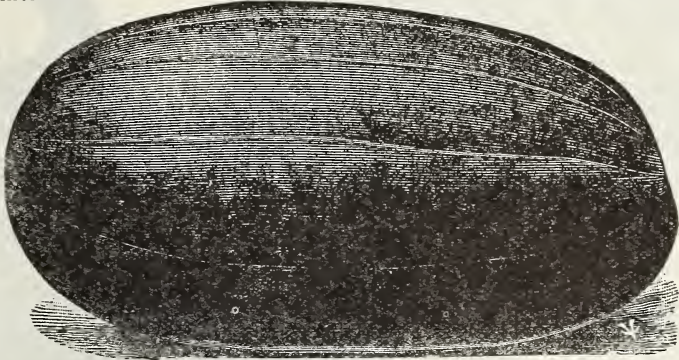
Watermelon seed, like all other seeds, should be selected from true types and from melons that have attained a large growth and ripened early. This method will produce and preserve true strains, while the generally followed plan of saving seed from all melons grown in a field without reference to size, shape, or time of ripening, will cause types and quality to deteriorate. Our growers give a great deal of time, thought and expense to the thorough selection of the seed furnished us. Under these conditions we are obliged to pay a higher price for the seeds we secure than we would for ordinary seed, but we have the great satisfaction of knowing that we are supplying our customers with a very much higher grade of seeds than is usually supplied by seed houses.

CULTURE—Watermelons thrive best on light, well drained soils, but give good results on any good rich garden soil that is properly drained and cultivated. Plant after the weather is settled and ground warm. Hills should be eight feet apart each way and with well rotted manure thoroughly worked into each hill.

KLECKLEY'S SWEET, OR MONTE CRISTO—This is one of the best flavored melons in cultivation, and of a shape and color that is extremely desirable. The rind is very dark green, very thin; flesh deep scarlet, fine, and of delicious quality. For the home market and family garden it is decidedly one of the best.

HALBERT HONEY—An exceedingly sweet and deliciously flavored melon, similar in size and shape to Kleckley's Sweet. It is of handsome, long, oval shape, averaging about 18 inches in length, and about six inches in diameter. The skin is an attractive, very dark green; the flesh is of a beautiful bright red, extending almost to the outer rind. The rind, too, is so thin and brittle that it cracks open very easily and will not stand hauling or shipping long distances.

McIVER'S OR WONDERFUL SUGAR—Oblong in shape; size uniformly large; handsome appearance; skin shows broad bands of white, shading into narrower bands of dark green; quality is superior, flesh is soft pale pink, crisp, free from any stringiness, and juicy. The melons have a solid heart, free from cracks, while the seed rows are close to the rim. **Pkt., 5c; oz., 10c; ¼ lb., 25c; ½ lb., 45c; 1 lb., 85c.**



Kleckley's Sweet

attractive red color, crisp, sweet and delicious. The heart is large with no core. The seeds are brown, tipped with white. The appearance and quality of this melon make it desirable for both home and market use.

K. Sweet, Halbert Honey and Tom Watson: **Pkt., 5c; oz., 10c; 2oz., 20c; ¼ lb., 30c; ½ lb., 50c; 1 lb., 90c. At purchaser's expense, 1 lb., 80c; 5 lbs., \$3.50; 10 lbs., \$6.00.**

FORDHOOK EARLY—An extra early watermelon of large size. The rind is tough, making it desirable for shipping purposes. Flesh is light red and is very sweet.

ICE CREAM OR PEERLESS—One of the best melons in cultivation. Rind thin, light, mottled green. Flesh bright scarlet; solid to the center; sweet as honey.

FLORIDA FAVORITE—Oblong in shape, growing to a very large size; rind dark, with light green stripes; flesh light crimson, crisp and deliciously sweet.

CUBAN QUEEN—A very fine variety, growing to a great size; flesh bright red, solid and sweet. The skin is beautifully striped, dark and light green.

All melons not otherwise quoted: **Pkt., 5c; oz., 10c; ¼ lb., 25c; ½ lb., 35c; 1 lb., 60c. At purchaser's expense, 1 lb., 55c; 5 lbs., \$2.50; 10 lbs., \$4.50.**

CITRON—For preserving; grows uniformly round and smooth; striped and marbled with light green; flesh white and solid. **Pkt., 5c; oz., 10c; ¼ lb., 25c; ½ lb., 45c; 1 lb., 80c.**



Tom Watson

TOM WATSON—A large, oblong melon, the skin of which is dark green, with thick netting on the entire surface, quite distinct from other varieties. It averages 18 to 24 inches long and 10 to 12 inches in diameter. The rind is thin but tough and flesh is a bright,

Cyphers Incubators

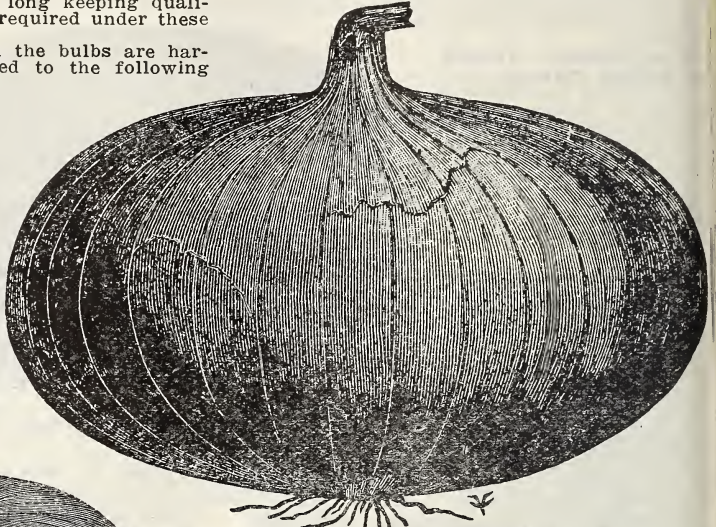
We are Agents and carry a Full Line
See prices and description on Page 63

Onions

It is readily seen that there is a great variety and diversity in the shape, color, size, and flavor of onions, also in their keeping qualities. The keeping is due in some respects to the different varieties, but the conditions under which onions are grown, add greatly or detract proportionately from their keeping qualities. The most of the onions grown in this country are grown in California, where the bulbs are harvested in August or September, and replanted for seed that same fall, therefore long keeping qualities in the bulbs are not required under these conditions.

In Europe and England the bulbs are harvested in fall, then stored to the following

CULTURE—Onions do best on a rich loam, previously cultivated for two years. The land should be highly fertilized with well-rotted manure, or complete fertilizers. Culture should be frequent, though shallow. The same ground may be used for onions season after season, if well fertilized annually. Bone meal is an excellent fertilizer. Winter storage demands dryness and protection from sudden changes. Onions should never be handled while frozen.



Red Wethersfield

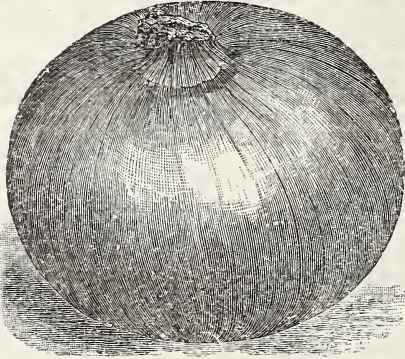
Brown

AUSTRALIAN BROWN—Of medium size, though growing quite large under favorable conditions. Wonderfully hard and solid, the bulbs are most attractive for market, both as to form and appearance. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 45c; ½ lb., 80c; 1 lb., \$1.50. At purchaser's expense, 1 lb., \$1.40; 5 lbs., \$6.50; 10 lbs., \$12.00.

White

SOUTHPORT WHITE GLOBE—A handsome, white, globe-shaped variety; flesh fine, very white, rich and sweet; it is also one of the best keepers of the silver-skinned kind.

WHITE PORTUGAL OR AMERICAN SILVER-SKIN—Produces early onion of mild flavor; largely used for growing sets and pickles.



Yellow Danvers

Yellow

YELLOW DANVERS—The leading large yellow kind, round, slightly flattened, flesh fine-grained, rather mild, very rich and sweet; one of the best keepers and shippers, and one of the most productive kinds.

YELLOW GLOBE DANVERS—This is the standard variety for winter use, producing well-ripened bulbs averaging two inches in diameter and nearly yellow; flesh pure white, crisp and mild in flavor.

Yellow Danvers and Yellow Globe Danvers, pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.10; 1 lb., \$2.00. At purchaser's expense, 1 lb., \$1.90; 5 lbs., \$9.00; 10 lbs., \$17.00.

MAMMOTH PRIZE-TAKER—Genuine seed of this variety produces the handsomest, largest Yellow Globe onion in the list. The yield per acre is larger than that of any other variety.

Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 45c; ½ lb., 80c; 1 lb., \$1.50. At purchaser's expense, 1 lb., \$1.40; 5 lbs., \$6.50; 10 lbs., \$12.00.



ONIONS—Continued

WHITE QUEEN OR EARLY BARLETTA—Remarkable for its earliness and mild flavor; it is small and white-skinned; the leading variety for pickling purposes.

BERMUDA—The skin is very thin; flesh white, fine-grained, of mild and pleasant flavor.

All varieties white onions, pkt., 5c; oz., 15c; 2 oz., 45c; ¼ lb., 75c; ½ lb., \$1.35; 1 lb., \$2.50.

Red

RED GLOBE—This beautiful strain of Red Globe onion surpasses all others in earliness, productiveness, perfection of shape, uniformity of size, richness of color and long-keeping qualities. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 50c; ½ lb., 85c; 1 lb., \$1.55. At purchaser's expense, 1 lb., \$1.50; 5 lbs., \$7.00; 10 lbs., \$13.00.

EXTRA EARLY RED FLAT—Deep red in color; resembles the Red Wethersfield, except that it is much earlier and somewhat smaller; desirable for early market.

LARGE RED WETHERSFIELD—The standard red variety. Bulb large and somewhat flattened, oval-shaped; skin deep purple red; flesh purplish white, moderately fine grained and rather strong flavor. Very productive.

All varieties of red onions: Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.10; 1 lb., \$2.00. At purchaser's expense, 1 lb., \$1.90; 5 lbs., \$9.00; 10 lbs., \$17.50.

OKRA OR GUMBO

The pods, sliced, are esteemed for soups, stews, etc., and whether used green or dried, must be gathered when young.

WHITE VELVET, HENDERSON'S—Large, round, smooth pods; never ridged; prolific. Pkt., 5c; oz., 10c; ¼ lb., 25c.

SETS



BOTTOM SETS—Are grown from seed that has been sown too thick to attain a large size. The small onions thus obtained are planted out, and are ready in a short time to pull as green onions for the table or bunched for the market. Last season we sold two cars of these sets and this was more than was sold by all other dealers in the Inland Empire. At the time of this writing, November 17, 1915, we are well sold into the second car for spring delivery.

YELLOW—1 lb., 15c; add postage. For large quantities, write for prices.

Pumpkins

CULTURE—Sow in good soil, when the ground has become warm, in hills eight or ten feet apart each way, or in fields of corn about every fourth hill.



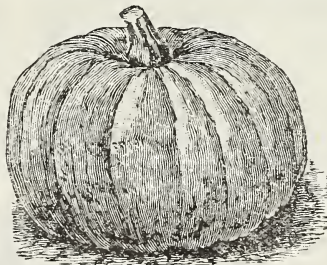
Connecticut Field

CONNECTICUT FIELD—A productive, large, orange-colored field pumpkin, usually grown for stock feeding, but it makes good pies.

BIG TOM—This is one of the largest, most uniform growing and productive varieties known.

KENTUCKY FIELD OR LARGE CHEESE—Fruit flattened, the diameter being two or three times more than the length. Skin mottled light green and yellow, changing to rich cream color as it matures; flesh tender and of excellent quality.

MAMMOTH PRIZE—The largest pumpkin grown; has attained a weight of 225 pounds. If you wish to see just how large a pumpkin can grow, try the Mammoth Prize. The quality is excellent. Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 55c; 1 lb., \$1.00. At purchaser's expense, 1 lb., 95c; 5 lbs., \$4.50; 10 lbs., \$8.50.



Early Sugar

EARLY SUGAR—Fine-grained, sweet and prolific; small in size, but one of the best for pies. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 40c; 1 lb., 70c. At purchaser's expense, 1 lb., 60c; 5 lbs., \$2.75; 10 lbs., \$5.00.

All pumpkins not otherwise quoted: Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 35c; 1 lb., 60c. At purchaser's expense, 1 lb., 50c; 5 lbs., \$2.25; 10 lbs., \$4.00.

Peppers

CULTURE—Sow the seeds early in hotbeds, or later, when the weather becomes warm, in open beds; when two or three inches high, transplant to a warm, mellow soil, in rows eighteen inches apart at one foot apart in the row.

RUBY KING—It is very bright colored,

PEPPERS—Continued



beautiful, sweet and mild flavored. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00.

LARGE BELL OR BULL NOSE—A large, mild, thick-fleshed variety. One of the best for stuffed pickles. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00.

LONG RED CAYENNE—Brilliant coral-red pods, three or four inches long, and a prolific bearer; very pungent and used very largely with pickles when green. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c.

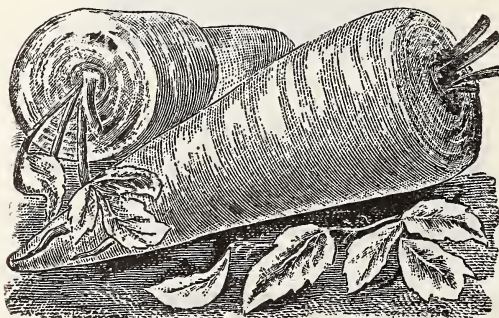
RED CHILI—Small, bright red peppers, very hot and pungent, and generally used for making "pepper sauce"; very prolific. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c.

RED CHERRY—Fruit cherry shaped, small, round, bright red. Largely used for pickles. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00.

Parsnips

CULTURE—Parsnips do the best in rich, deep soil, but will make good roots on any soil which is deep and mellow and moderately rich. As the seed is sometimes slow to germinate, it should be sown as early as possible.

IMPROVED GUERNSEY (Improved Half-Long)—A greatly improved and wonderfully fine strain of Guernsey parsnip. It is a very heavy cropper. The roots are very smooth, the flesh is finely grained and of most excellent quality.



LONG SMOOTH OR HOLLOW CROWN (Abbott's Improved Long Sugar or Long White Dutch Parsnip)—A great cropper; tender, sugary, and considered the best for general cultivation. Parsnips are improved by remaining exposed to the frost.

Both varieties of parsnips: Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; ½ lb., 35c; 1 lb., 60c. At purchaser's expense, 1 lb., 50c; 5 lbs., \$2.25 10 lbs., \$4.00.

PARSLEY



Very useful for flavoring soups, meats and for garnishing. The green leaves are used for flavoring.

CHAMPION, MOSS CURLED—A compact grower, finely cut and much curled variety of bright green color. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; ½ lb., 35c; 1 lb., 65c.

PEANUTS

The peanut thrives and produces best on a light, sandy, fertile soil with a good clay subsoil. It possesses a long tap-root which extends deep into the earth. Lb., 30c.

Peas---Garden

Our peas are grown in the Inland Empire under our own supervision and have been very carefully rogued by us, thus insuring peas of the very best possible type. Our different growers grew for us 144,000 pounds of garden peas. These have all been grown by men of experience and in the very choicest places of the Inland Empire. Our immense trade on peas demonstrates their reliability and popularity.

We want to lay special emphasis on Gradus, Potlatch and Laxtonian. These are all large podded, exceptionally fine flavored, and good producers. We have spent time and money in bringing these varieties to their present high state of perfection. Our customers will not be disappointed by giving one or all of these a trial.

Extra Early

ALASKA OR EARLIEST OF ALL—Earliest and best of all the blue smooth varieties. A smooth, blue pea, which in evenness of growth of vine and early maturity of pods is unequaled by any other pea. Vines two to two and one-half feet high. A great favorite with our market gardeners for fall and early spring planting. Lb., 15c; 5 lbs., 60c; 10 lbs., \$1.10; 25 lbs., \$2.25; 50 lbs., \$4.00; 100 lbs., \$7.00; add postage.

MCCLEAN'S LITTLE GEM—The vines grow about 18 inches in length, producing well filled pods of from 2½ to 3 inches long. The peas are green, wrinkled, sweet and delicious.

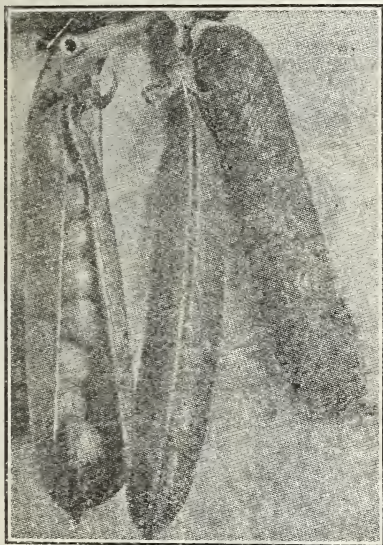
AMERICAN WONDER—The earliest and best of the wrinkled sort. A great favorite for family use. Has stout, branching vines about 10 or 12 inches high, and covered with well-filled pods, containing sweet, tender and well flavored peas.

NOTT'S EXCELSIOR—The best early dwarf pea. Very compact growth. Vines

PEAS—GARDEN—Continued

about 1 foot high. Pods 3 inches in length, containing from 6 to 9 large peas, which are of a very fine quality and sweet flavored.

Little Gem, American Wonder and Nott's Excelsior: Lb., 15c; 5 lbs., 65c; 10 lbs., \$1.25; 25 lbs., \$2.50; 50 lbs., \$4.50; 100 lbs., \$8.00; add postage.

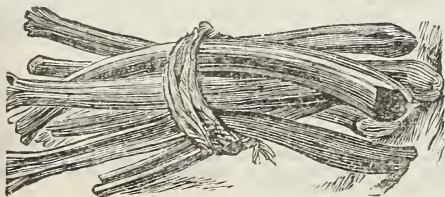
Second Early**Gradus**

GRADUS—This bears pods of large size, and combines quality with earliness. It is very hardy; can be planted fully as early as the smooth peas; grows vigorous and healthy; pods are large, well filled, containing 7 to 9 peas; vines two and a half feet in height; very prolific. The quality and flavor are delicious, and the peas remain tender and sweet for a long time.

POTLATCH—A fine, new variety of great merit. The vines are vigorous, growing 15 to 18 inches high, with dark green foliage, often measuring six inches in length, with 8 to 9 enormous peas in a pod. The vines are sturdy and the pods are borne in pairs. It is wonderfully productive. The peas are of very fine quality, being sweet, rich and delicious.

LAXTONIAN—A new variety, of splendid quality and unusual productiveness. Vines grow from 15 to 18 inches high, pods from 4 to 4½ inches in length. Pods are of a deep bluish green, well filled and contain from 8 to 10 large peas, which are of a superior flavor, sweet and delicious. We highly recommend this new pea and believe you will not be disappointed if you give it a trial.

Gradus, Potlatch and Laxtonian: Lb., 20c; 5 lbs., 85c; 10 lbs., \$1.50; 25 lbs., \$3.00; 50 lbs., \$5.00; 100 lbs., \$9.00; add postage.

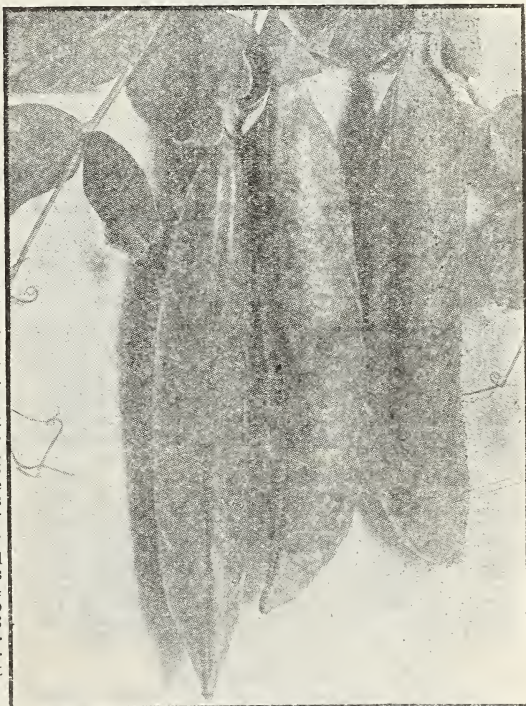
RHUBARB OR PIEPLANT**Late**

STRATAGEM—One of the best of the large, podded peas; the pods are of immense size, measuring 4½ to 5 inches, filled with large, dark green, wrinkled peas of the finest quality. Vine grows to a height of about 18 inches. Lb., 15c; 5 lbs., 65c; 10 lbs., \$1.25; 25 lbs., \$2.50; 50 lbs., \$4.50; 100 lbs., \$8.00; add postage.

DWARF TELEPHONE—Produces handsome long pods. A great favorite with our market gardeners. Immensely productive, of the finest quality and excellent sugary flavor; vines very strong, growing from 18 to 24 inches high. The pods are of large size, filled with large, delicious peas. Lb., 20c; 5 lbs., 85c; 10 lbs., \$1.50; 25 lbs., \$3.00; 50 lbs., \$5.00; 100 lbs., \$9.00; add postage.

MELTING SUGAR—The kind that has sweet, broad pods, and are used the same way as snap and string beans. This is the most popular of the edible podded varieties. The pods are large, straight, very tender and finely flavored. Vines medium height. Lb., 25c; add postage.

See page 44 for Canadian, Green Field, Bangalia and Cow Peas.

**Potlatch**

CULTURE—Sow in drills an inch deep, and thin out the plants to six inches apart. Transplant the young plants, setting them four to six feet apart each way. The stalks should not be plucked until the second year, and the plant never allowed to exhaust itself by running to seed.

VICTORIA OR MAMMOTH—Very large; finest cooking variety. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 70c; 1 lb., \$1.25.

RADISHES

THE SECRET IN GROWING GOOD RADISHES consists chiefly in the observance on the part of the grower of three points. First, they should be grown on light soil. Second, they should be given plenty of water; and last, but not by any means least, the right kind of seed should be sown. Radishes grow very quickly, and if not supplied with plenty of water are apt to be pithy.



SCARLET TURNIP WHITE-TIPPED RADISH.

EARLY SCARLET TURNIP, WHITE TIPPED—The favorite variety for outdoor cultivation; medium size, uniform shape; color bright scarlet, with white tip, which makes it most attractive. It grows quickly; flesh white, crisp and of the best quality.

SCARLET GLOBE—Similar in form to the Scarlet Turnip—Rooted, but much darker in color; flesh white, very crisp and tender; top small, well adapted for growing in frames.

The two foregoing varieties: **Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; ½ lb., 35c; 1 lb., 60c; At purchaser's expense, 1 lb., 50c; 5 lbs., \$2.00; 10 lbs., \$3.50.**

EARLY CRIMSON GIANT—The largest early scarlet turnip-shaped radish. A very early radish, double the size of any of the other early turnip-shaped type, but notwithstanding its immense size, does not get hollow and pithy. The flesh is a sparkling white, solid, crisp and juicy, and of the mildest flavor. Excellent for both forcing and open ground. **Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 40c; 1 lb., 75c. At purchaser's expense, 1 lb., 65c; 5 lbs., \$2.75; 10 lbs., \$4.50.**

Olive Shaped

FRENCH BREAKFAST, OR HALF-LONG WHITE TIPPED—Medium size, of quick growth, crisp and tender; terminates more abruptly than the Half-Long Scarlet, lower end of tap root white. **Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 20c; ½ lb., 35c; 1 lb., 65c. At purchaser's expense, 1 lb., 55c; 5 lbs., \$2.50; 10 lbs., \$4.00.**

Long

EARLY LONG SCARLET—The leading variety either for the family or market garden. From six to eight inches long, standing nearly half above the ground; bright scarlet, smooth, crisp, tender and mild.

IMPROVED CHARTIER—Roots long, tapering rather abruptly and attaining a very large size. Of rapid growth, it is soon ready for

the table, remaining crisp and tender until fully grown. Color, scarlet above, shading into white at the tip. Flesh white and mild flavored.

NEW WHITE ICICLE—The finest of the early pure white varieties. They are long and slender and clear pure white, making them very attractive when on sale and on the table. It is crisp and tender both when young and until it attains a large size, thus remaining in condition for use for considerable time. Roots grow four inches in length and half an inch in diameter; they retain their crispness and fresh mild flavor until fully six inches long and an inch in diameter.



White Icicle

LONG WHITE VIENNA, OR LADY FINGER—The best long white radish grown; pure white, tender and sweet; a favorite also for its beauty of form and rapid growth.

WHITE STRASBURG—Of handsome, oblong, tapering shape, both skin and flesh being pure white. The flesh is firm, brittle and tender and retains its crispness even if old and large. Excellent for summer use. Very popular because it remains fit for use a long time and does not get pithy. Sometimes called the Sandwich radish.

The foregoing five varieties of long radishes: **Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 35c; 1 lb., 65c. At purchaser's expense, 1 lb., 55c; 5 lbs., \$2.25; 10 lbs., \$4.00.**

Winter

LONG BLACK SPANISH—Very hardy and good for winter use. Will keep good all winter. The roots, which present a rusty, black appearance, are large, firm and not liable to become pithy.

MAMMOTH CALIFORNIA OR WHITE CHINA—Very large and cylindrical, terminating abruptly with little tap-root; mild and tender, and keeps well all winter. The skin and flesh are of a transparent white.

CHINA ROSE—One of the best fall and winter varieties. Half-long shape; upper part bright crimson, shading to white. Flesh white, firm, tender and of superior quality.

All varieties of winter radishes: **Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 40c; 1 lb., 70c. At purchaser's expense, 1 lb., 60c; 5 lbs., \$2.50; 10 lbs., \$4.50.**

SPINACH

It might seem to some that the item of Spinach is insignificant. We have, however, been so careful in selecting our seed and have obtained such good results for our growers by our careful selection that we have contracted for 2500 pounds to supply our trade this season. This comes from Holland, the natural home of Spinach.



CULTURE—It is one of the most easily managed of all vegetables, requiring but little culture. For spring and summer use sow broadcast or in drills as early as possible. Then sow at intervals for successive crops. For very early spring use it is sometimes sown in August or September, protecting it slightly during the winter.

VICTORIA—Dark, large green leaves, of good quality. A great yielder.

BLOOMSDALE—A very early variety. Is hardy, and may be planted for early spring use.

LONG STANDING—An improved variety, slow going to seed, and perhaps the best for general use.

IMPROVED THICK LEAVED—A variety which grows very rapidly, forming a cluster

of large, very thick, slightly savoyed leaves of fine color and quality when cooked. Best for market gardeners.

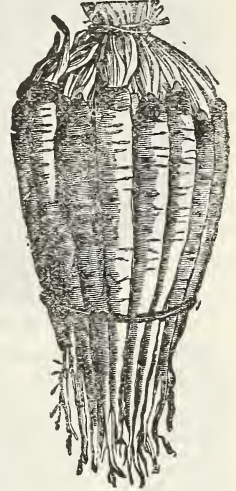
PRICKLY WINTER—A very hardy variety; will withstand the cold of winter. Seed prickly. Leaves long, pointed, and of good quality.

All varieties of spinach: **Pkt.**, 5c; **oz.**, 10c; $\frac{1}{4}$ lb., 20c; $\frac{1}{2}$ lb., 30c; **lb.**, 40c. At purchaser's expense, **lb.**, 35c; **5 lbs.**, \$1.60; **10 lbs.**, \$3.00.

SALSIFY OR VEGETABLE OYSTER

CULTURE—Sow early and quite deep, giving the general culture recommended for parsnips. The roots are perfectly hardy, and may remain out all winter, but should be dug early in the spring, as they deteriorate rapidly after growth commences.

MAMMOTH SANDWICH ISLAND—Of superior quality. Pure white. Very meaty and of fine flavor. Grows uniformly large. **Pkt.**, 5c; **oz.**, 15c; **2 oz.**, 25c; $\frac{1}{4}$ lb., 40c; $\frac{1}{2}$ lb., 1.25; **lb.**, \$1.25.



Squash

CULTURE—Delay sowing until the soil has become warm. The general principles of culture are the same as those given for cucumbers and melons. The summer varieties should be planted four to six feet apart each way, and the winter sorts eight to ten. Three plants are sufficient to a hill.

Summer

EARLY SUMMER CROOKNECK—An early prolific kind, having a solid curved neck; the skin in yellow, thin, hard and very warty, flesh tender and of good quality.

EARLY YELLOW MAMMOTH BUSH SCALLOP—An early; flat, scallop-shaped variety; color yellow; flesh pale yellow and well flavored; very productive.

Summer Crookneck

EARLY WHITE BUSH SCALLOP—The best summer sort for the market; very productive and of good size.

Crookneck and Bush Scallop Squash: **Pkt.**, 5c; **oz.**, 10c; **2 oz.**, 20c; $\frac{1}{4}$ lb., 25c; $\frac{1}{2}$ lb., 40c; **lb.**, 75c. At purchaser's expense, **lb.**, 65c; **5 lbs.**, \$3.00; **10 lbs.**, \$5.50.

ENGLISH VEGETABLE MARROW—A favorite English variety, bearing freely oblong, dull yellow fruit 10 to 15 inches in length by 4 to 5 inches in diameter; flesh before ripe, tender, marrowy and delicious. **Pkt.**, 5c; **oz.**, 10c; $\frac{1}{4}$ lb., 25c; **lb.**, 85c.

Winter

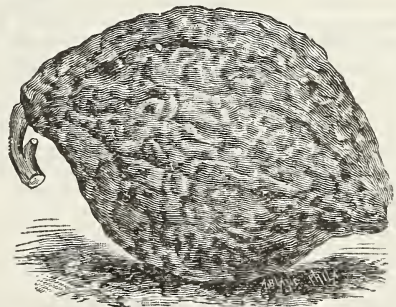
BOSTON MARROW—A good keeper, of excellent flavor; flesh orange colored and fine grained.

MAMMOTH CHILI—The largest variety grown, having attained a weight of over 200 lbs.; round, flattened at the ends; rind deep

orange; flesh deep yellow, thick and very nutritious; sometimes used for the table, but more desirable for stock feeding. **Pkt.**, 5c; **oz.**, 15c; **2 oz.**, 25c; $\frac{1}{4}$ lb., 40c; $\frac{1}{2}$ lb., 70c; **lb.**, \$1.25. At purchaser's expense, **lb.**, \$1.15; **5 lbs.**, \$5.25; **10 lbs.**, \$10.00.

GOLDEN HUBBARD—This is a very distinct sort of the shape and general character of the Hubbard, but a little smaller; earlier to mature, and of a rich, orange-red color.

CHICAGO WARTED HUBBARD—The vines are vigorous and productive, while the large, dark, olive-green fruit is heavily warted. Very handsome in appearance; an excellent keeper and of splendid quality.



Warty Hubbard

NEW DELICIOUS—Average weight from five to ten pounds. Flesh exceedingly thick fine grained and meaty and almost of mealy dryness. Color golden orange. **Pkt.**, 5c; **oz.**, 15c; **2 oz.**, 25c; $\frac{1}{4}$ lb., 35c; $\frac{1}{2}$ lb., 60c; **lb.**, \$1.10. At purchaser's expense, **lb.**, \$1.00; **5 lbs.**, \$4.50; **10 lbs.**, \$8.00.

Winter squash, if not otherwise quoted: **Pkt.**, 5c; **oz.**, 10c; **2 oz.**, 20c; $\frac{1}{4}$ lb., 25c; $\frac{1}{2}$ lb., 45c; **lb.**, 85c. At purchaser's expense, **lb.**, 75c; **5 lbs.**, \$3.75; **10 lbs.**, \$7.00.

Tomatoes

CULTURE—Sow early in hotbeds and as soon as they have four leaves transplant into shallow boxes. Harden off and set out as soon as danger of frost is over.



Earliana

SPARK'S EARLIANA—The earliest large and smooth tomato. The most perfect of all tomatoes. Of large, uniform size and beautiful red color. Quality almost beyond praise. A most vigorous grower and heavy bearer, continuing until frost. Spark's Earliana is as near seedless as any tomato, giving but 12 to 15 pounds of seed to the acre, while other varieties yield from 75 to 100 pounds to the acre. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.35; 1b., \$2.50.

LIVINGSTON'S CORELESS—A new bright red tomato of the globe-shaped type, almost round. It is a strong grower and a heavy cropper, a grand slicing variety and ripens all over and through. Pkt., 10c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00; ½ lb., \$1.75; 1b., \$3.00.

DWARF CHAMPION, OR TREE TOMATO—The plant is dwarf and compact; fruit medium size, rich, glossy red, smooth and solid; fine for private gardens. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.35; 1b., \$2.50.

MOORE'S EARLY—This variety is of late introduction and is claimed by its originator

to be earlier than Earliana, it is said to be the earliest tomato grown. Medium size with a sparse vine, and sets its fruit very early. Pkt., 5c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00; ½ lb., \$1.75; 1b., \$3.00.

ESSEX EARLY HYBRID—Fruit very dark and handsome; grows rather rough, but being an immense yielder it will produce as many smooth, fine tomatoes as almost any other variety. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.10; 1b., \$2.00.

NEW TOMATO—CHALK'S EARLY JEWEL—The large, handsome fruits are very solid and deep through, being almost round or ball shaped. Color, brightest scarlet, ripening right up to the stem without any cracks. The foliage is rather sparse and open, admitting the sunlight to the center of each plant, so that all the fruits are thoroughly ripened. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.35; 1b., \$2.50.

ATLANTIC PRIZE (Extra Early)—A distinctly early variety, of good size and smooth surface. Many of the objections to the usual early kinds, such as undersize, deep corrugations and rough skin, are overcome in the Atlantic Prize. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.10; 1b., \$2.00.

NEW STONE—Fine for main crop; very large; color bright scarlet; very smooth, ripening up to the stem without a crack; exceedingly solid and firm fleshed; an excellent shipper; quality the very best. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.35; 1b., \$2.50.

PEACH—This is a distinct and very attractive tomato for preserving, eating from the hand or table. Fruit resembles a peach in shape, size and color. Flesh tender and of good flavor. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c.

GROUND CHERRY OR HUSK—Plants of low, spreading growth and immensely productive. The small yellow fruits are each enclosed in a husk or covering. When ripe the fruits are an inch in diameter, bright yellow and of very sweet flavor; highly esteemed for preserving. Pkt., 5c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00.

YELLOW PEAR-SHAPED—A small-fruited variety, which is golden-yellow. It is very useful for salads. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c.

Turnips

Few realize the extent to which turnips and rutabagas are used for table and stock purposes. Some idea may be gained from the fact that our contracts this year called for enough seed to sow 3000 acres at the rate of 1½ pounds to the acre. This extensive trade has been gradually built up by our supplying a superior grade of seed. A seed that will produce large, well-shaped roots, thus yielding an immense tonnage to the acre.

CULTURE—For early use sow as soon as the ground can be worked, in drills 15 to 18 inches apart, and half an inch deep. For winter use, sow during July, as early sowings are unfit for winter use.

EARLY PURPLE TOP, STRAPPED LEAVED—One of the best and most universally grown; small, erect top, round, flat; purplish red above; white underneath; flesh firm, but very tender and sweet.

EARLY FLAT WHITE DUTCH, STRAPPED LEAVES—A leading white-fleshed variety, and one of the best, either for family, market garden or field crop; of medium size and produces a large crop. The flesh is firm, but tender, and of a superior rich, buttery flavor.

PURPLE TOP WHITE GLOBE—A perfect

globe shape, with smooth white skin; flesh pure white, firm and crisp. Purple above ground.



These three varieties: Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 35c; 1b., 60c. At purchaser's expense, 1b., 50c; 5 lbs., \$2.25; 10 lbs., \$4.00.

TURNIPS—Continued

WHITE EGG—A quick growing egg-shaped, perfectly smooth, pure white variety, with small top and rough leaves. It grows half out of the ground; the flesh is very sweet, firm and mild.

EARLY SNOWBALL—A perfectly globe shaped, white skinned turnip. The flesh is fine grained, firm and of very delicate flavor. Very early.

POMERANIAN WHITE GLOBE, STRAPPED LEAVED—This is a free growing, rough leaved sort; perfect globe shape; skin white and smooth; leaves dark green.

YELLOW ABERDEEN—Round, medium size, light yellow; strained with purple on top; produces a large crop; flesh very firm, tender and sweet.

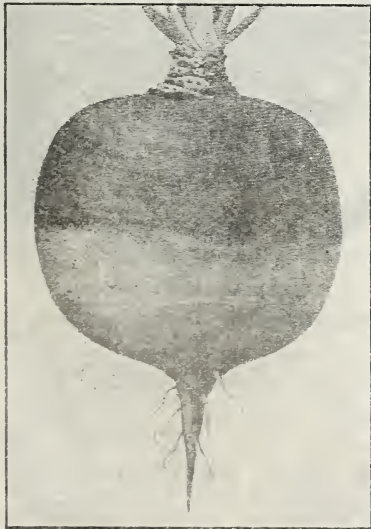
COWHORN—Sometimes called Long White. Is slightly crooked, pure white, except a little shade of green at the top. Grows half out of the ground and is of very rapid growth; is delicate and well flavored. An immense yielder.

The foregoing five varieties of turnips: Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 35c; 1 lb., 65c; postpaid. At purchaser's expense, 1 lb., 55c; 5 lbs., \$2.50; 10 lbs., \$4.50.

WHITE MILAN—The earliest of all. The earliest turnip and the best quality in its class. A fine, snowy-white color. The skin is so smooth and neat as to seem polished. The foliage is short. Size medium, and the flesh is white, tender and smooth grained. Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 35c; ½ lb., 55c; 1 lb., \$1.00.

Rutabagas or Swedes

For feeding stock in fall and winter there is nothing superior to rutabagas, as they are much liked by all kinds of stock and serve to keep them in good condition. We desire to call special attention to an improved Bangholm. If you have not used this, give it a trial and we believe you will be more than pleased.



Danish Purple Top

BANGHOLM PAJEJERG (Improved Danish Purple Top)—This variety was awarded a first-class certificate by the Danish government for heaviest yield, having given 49 tons per acre. In shape is a little more elongated than the Globe types. This variety is recommended as the best of its class.

SWEET RUSSIAN OR WHITE—Hardy

easily grown, large, and yields as much as the best yellow kinds; flesh fine-grained and solid, but tender and well flavored; good for stock and desirable for the table.

Price on Bangholm and Sweet Russian Rutabagas: Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 35c; 1 lb., 65c; postpaid. At purchaser's expense, 1 lb., 55c; 5 lbs., \$2.50; 10 lbs., \$4.50.

YELLOW SWEDE OR RUTABAGA—Shape oblong, dull reddish color above ground, but yellow underneath; is harder than the common turnip and will keep till spring. Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 35c; 1 lb., 60c; postpaid. At purchaser's expense, 1 lb., 50c; 5 lbs., \$2.25; 10 lbs., \$4.00.

Herbs

ANISE—Used for cordials, garnishing and flavoring. Pkt., 5c; oz., 10c.

BALM—Leaves used for making pleasant beverages. Pkt., 5c; oz., 25c.

BASIL—Sweet; the leaves are used in flavoring soups, etc. Pkt., 5c; oz., 15c.

CARAWAY—Grown for seeds; used for flavoring. Pkt., 5c; oz., 10c.

CATNIP OR CATMINT—Leaves and young shoots for seasoning. Pkt., 5c; oz., 35c.

CORIANDER—Seeds used in the manufacture of liquors, in confectionery and culinary preparations. Pkt., 5c; oz., 10c; ¼ lb., 25c.

DILL—Seeds have an aromatic odor and pungent taste. Pkt., 5c; oz., 10c; ¼ lb., 25c.

FENNEL—Sweet; ornamental; when boiled, used in fish sauce. Pkt., 5c; oz., 10c.

HOREHOUND—For seasoning and cough remedy. Pkt., 5c; oz., 20c.

LAVENDER—An aromatic, medicinal herb. Pkt., 5c; oz., 20c.

MARJORAM—Sweet; leaves and shoots used for seasoning. Pkt., 5c; oz., 15c.

SUMMER SAVORY—Used for flavoring soups. Pkt., 5c; oz., 10c.

THYME—Leaves and young shoots used for seasoning; a tea is made from leaves, a remedy for headache. Pkt., 5c; oz., 30c.

**CLOVER LEAF
POULTRY FEEDS**

are all of the very highest grade. Scientifically made and strictly sanitary : : :

Our
Business
Is Conducted
on a Cash Basis

Send remittance with order.

DO NOT FORGET TO ADD POSTAGE

Flower Seeds

ACROCLINIUM—A very pretty, half hardy annual producing white and rose colored, double daisy-like flowers, about one and one-half inches in diameter. Each flower-head is borne singly on a very long stem; leaves small, narrow, alternate. These are "Immortelles" so desirable for wreaths and winter bouquets.

Sow the seed in open ground early in spring, preferably in light, well prepared soil, and cover with one-fourth inch of fine soil firmly pressed down. Thin the young plants to four inches apart. Height fifteen inches. **Pkt., 5c; ¼ oz., 25c.**

ARABIS OR ROCK CRESS (P)—The earliest, prettiest spring flower. The spreading tufts are covered with a sheet of pure white flowers as soon as the snow disappears. Unequaled for rookeries or edgings; withstands the drought and is always neat. **Pkt., 10c; ¼ oz., 30c.**

AGERATUM—Floss Flower (A)—One of the most useful and profuse-blooming plants known. A beautiful, hardy annual of neat bushy habit. The attractive feathery flowers

borne in dense clusters are very useful for bouquets. Very desirable for outdoor bedding and borders, being covered with bloom nearly all summer. **Pkt., 5c; ¼ oz., 15c.**

MEXICANUM COERULEUM—Blue. **Pkt., 5c.**

MEXICANUM GRANDIFLORUM—White **Pkt., 5c.**

ALYSSUM SWEET LITTLE GEM (A)—The plants are very dwarf and spreading they grow only three to four inches high and each plant completely covers a circular space twelve to twenty inches in diameter. They soon become one mass of white, remaining in full bloom from spring to fall. **Pkt., 5c; oz., 40c.**

AMARANTHUS (A)—Brilliant-foliaged annuals, growing from three to five feet high, bearing curious racemes of flowers. Useful in borders of tall plants or for the center of large beds. They thrive best in a hot, sunny location, not too rich soil, and given sufficient room to develop their full beauty.

CAUDATUS (Love Lies Bleeding)—Blood red; drooping. **Mixed pkt., 5c.**

ASTERS

There is no more beautiful flower than the Aster, and there is none with a greater diversity of colors and sizes. These have been very much improved, so that today the largest and most beautiful resembles a fine Chrysanthemum more than it does an old-fashioned Aster.

Our stock has been selected with the greatest care, so that we are able to offer varieties that will undoubtedly please and delight anyone giving them reasonable care. You will notice that they are 10c and 15c per package. As a special we offer any 12 packages for one dollar.

GIANT COMET, OR OSTRICH PLUME (A)—Are thrifty growers, 15 inches high, bearing immense long stemmed flowers, composed of long, wavy petals, like Japanese Chrysanthemums. Crimson, Dark Blue, Light Blue, Rose, White and mixed. **Pkt., 10c; ¼ oz., 50c.**



Hohenzollern Aster

HOHENZOLLERN ASTER (A)—The finest type of the Giant Comet, or Ostrich Feather type of Asters. Much larger than the Giant Comet, the petals longer and more curled and twisted, and produced in greater abundance. Borne on long stems, which makes them cut flowers par excellence. White, Light Blue, Dark Blue, Pink, Rose, Lavender, Yellow, Crimson and mixed. **Pkt., 10c; ¼ oz., 50c.**

NEW "CREGO GIANT" ASTER (A)—The "Giant" Crego is distinct in every way, and its magnificent flowers, often growing to 6 inches in diameter, are fully equal to Chrysanthemums. They have rare beauty of form and brilliant coloring, are very vigorous, and free flowering; blooms are borne on long stems. White, Pink, Rose, Crimson, Lavender and mixed. **Pkt., 15c; ¼ oz., 75c.**

ASTER (CHINESE SINGLE) (P)—These are exceedingly showy and excellent in cutting for vase decorations. The large, brilliant, daisy-like flowers with yellow centers are produced in profusion. Hardy perennial. **Finest Mixed, Pkt., 5c; ¼ oz., 40c.**



Giant Comet or Ostrich Plume.

ASTERS—Continued

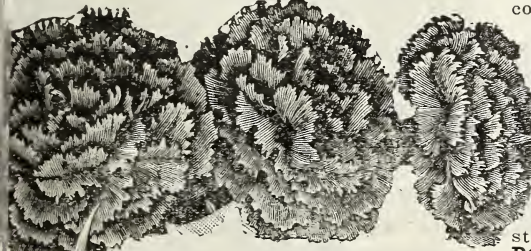
ASTERMUM—(What Is It?)—A strain of Comet Asters which on account of their immense size and chrysanthemum-like appearance have appropriately been named Aster-mums. They were first exhibited at the convention of American Florists in 1912 and attracted great attention. The plants grow about two feet high with long, strong stems. Most of the flowers are five inches across. Mixed pkt., 15c; 6 for 50c.

BALSAM LADY SLIPPERS (A)—An old and favorite garden flower, producing its gorgeous masses of beautiful brilliant-colored double flowers in the greatest profusion; of easy culture; succeeds in a good rich soil; tender annuals; 2 feet. Start the seed indoors in April or sow out of doors in May. To grow fine specimens they should not be closer than 18 inches apart.

DOUBLE CAMELLIA-FLOWERED—Finest mixed. Pkt., 5c; ¼ oz., 25c.

BACHELOR'S BUTTON, OR CENTAUREA CYANUS (A)—A hardy annual, easily cultivated. Has recently been greatly improved, and now produces handsome flowers of a great variety of rich colors. Borne on tall, branching stems, with but little foliage. Striking and handsome. Pkt., 5c; oz., 25c.

BEGONIAS (P)—Begonias are among the most beautiful of flowering plants, especially adapted to pot culture. Mixed, pkt., 25c.



CARNATIONS

The Carnation has always been one of the most esteemed of flowers, on account of their spicy fragrance, richness and diversity of color, great beauty, free-blooming and ease of culture. The several mixtures offered by us are among the very best obtainable. For early blooming sow under glass. Can be sown in the open garden.

MARGUERITE DOUBLE MIXED (A)—The most magnificent of all the Pink fam-

ily and a general favorite for their delicious fragrance and richness of color. Pkt., 10c; ¼ oz., 50c.

VIENNA DWARF MIXED—Produces double, sweet-scented flowers, in a great variety of colors and in great profusion. Pkt., 15c; ¼ oz., 75c.

GIANT MALMAISON—An exceedingly fine mixture. Pkt., 25c.

COREOPSIS (LANCEolata) (P)—Blossoms the first year; flower rich yellow, single; very fine for cutting. Pkt., 10c; ¼ oz., 50c.

CHRYSANTHEMUMS (A)—The Annual Chrysanthemums are rapidly coming to the front, both as greenhouse and garden plants, as they have recently been greatly improved. Choice mixed, pkt., 5c; ¼ oz., 15c. Fancy mixed, pkt., 10c; ¼ oz., 25c.

CENTAUREAS

IMPERIALIS ROYAL SWEET SULTAN (A)—This beautiful class is undoubtedly the finest of all Sweet Sultans for cut flower purposes. The beautiful sweet-scented, artis-

tic-shaped flowers are borne on long, strong stems, and when cut will stand for several days in good condition. It is best, in this latitude, to sow very early in the spring, so that they may perfect their flowers before very hot weather comes. Pkt., 10c; ¼ oz., 25c.

WHITE LEAVED DUSTY MILLER (A)—Fine for bedding, vases, hanging-baskets and pots; also extensively used for margins. As an edging to a bed of dark-leaved Cannas or Scarlet Sage these are particularly effective. Sow the seed early indoors, and transplant in May.

CANDIDISSIMA—Silvery white; leaves broadly cut. Pkt., 15c; ¼ oz., 75c.

CANDYTUFF (A)—Mixed many fine shades. Pkt., 5c; oz., 25c. White—Pkt., 10c; oz., 50c.

CANNA (FRENCH MIXED) (P)—Ornamental, tropical-looking plants of easy culture; large and beautiful flowers. Hardy perennial. Pkt., 10c; oz., 40c.

CALEUNDULA (POT MARIGOLD) (A)—Very hardy annual, one foot high, blooming freely practically the whole year round. Is of the easiest culture and is desirable for rather inferior soils, where less sturdy flowers do not thrive. A medicinal extract resembling arnica is made from the flowers. Pkt., 5c; oz., 25c.

CALLIOPSIS (A)—A quick growing annual. The flowers are placed on graceful wavy stems and in color run through all the shades of red and yellow; foliage dainty; useful combined with other flowers. Pkt., 5c; ½ oz., 25c; oz., 40c.

CELOSIA (COXCOMB) (A)—Free blooming annuals, growing best in light soil not too rich. They make splendid border plants and are attractive for pots. Finest mixed, pkt., 10c.

COLUMBINE OR AQUILEGA (P)—A delightful hardy perennial, growing about two feet high, and splendid for permanent beds and borders. Thrives in partial shade and under the spray of a fountain or other moist location. Bears exquisite blossoms of clear blue, white, rose, purple and striped. Single mixed, pkt., 10c; ½ oz., 30c. Double mixed, pkt., 10c; ½ oz., 30c.

CLARKIA (A)—Handsome, free flowering annuals of easy cultivation. Produce a fine effect massed in beds. Flowers are very bright and attractive. Single and double mixed, pkt., 5c; ½ oz., 25c.

COLEUS—Magnificent ornamental foliage plants for house or garden culture. The leaves are of many shapes, and the shades and colors are of remarkable beauty. Finest Hybrids Mixed, extra choice, pkt., 25c.



Canterbury Bells

CANTERBURY BELLS (Campanula Caly-canthea) (Cup and Saucer) (B)—Produces beautiful single flowers three inches in length with saucers three to four inches in diameter. The plants form pyramids of bloom bearing from 100 to 200 of these exquisite blossoms for weeks during the early summer. A hardy biennial 2½ feet high, flowering the second season from seed. White, Blue, Pink. Pkt., 10c; ¼ oz., 60c; mixed, all colors, pkt., 5c; ¼ oz., 30c.



Cosmos

COSMOS (A)—A strong grower, having elegant foliage, and for fall blooming has no superior. Seed grown in March or April and transplanted to open ground will produce plants three to five feet high by September, which thereafter, until November, will yield hundreds of blossoms three inches across; various shades. **Mixed, pkt., 10c; ¼ oz., 25c.**

CYPRESS VINE OR IPOMOEA QUAMOCIT (A)—A climber of rapid growth, having handsome fern-like foliage and a profusion of bright, attractive flowers. **Mixed, pkt., 5c; oz., 25c.**

DAHLIA (P)—But few people know Dahlias can be raised from sod and will bloom the first year. The seeds germinate as easily and certainly as Zinnias, and from the very first development are strong and sturdy little plants. Plant them in a shallow box or pan early in March or April, transplant them carefully as their growth demands. When all danger from frost is over plant them in the bed or border in the garden, and from then on they will prove no more trouble than if the tubers had been used instead of seed. **Double Mixed, pkt., 10c; ¼ oz., 50c; Single Mixed, pkt., 10c; ¼ oz., 40c; Double Cactus Mixed, pkt., 15c; ¼ oz., 75c.**

DAISIES

SHASTA (P)—A most remarkable new flower, originated by Luther Burbank, of California; bears flowers of the snowiest white, with yellow centers; blooms the first season and should be sown in boxes early and transplanted. **Pkt., 15c; ¼ oz., 75c.**

DOUBLE BELLIS (P)—Beautiful double flowers that appear in early spring if plants are slightly protected over winter. Blossoms also early from spring-sown seed, as plants bloom when but two or three inches high. **Mixed, pkt., 15c; ¼ oz., 75c.**

DIANTHUS (CHINESE PINK) (B)—Mixed single, many distinct and beautifully marked varieties. **Pkt., 5c; ¼ oz., 25c.**

DIGITALIS (FOXGLOVE) (P)—Handsome ornamental, hardy plants of stately growth. The seed, though small, germinates readily and the plants succeed well even in poor soil if given a half shady location. The spikes are often 3 to 5 feet long and thickly strung with scores of thimble-shaped flowers. **Mixed colors, pkt., 5c; ¼ oz., 25c.**

DIMORPHOTHECA AURANTIACA (A)—The Golden Marguerite. A rare and extremely showy annual from South Africa which has be-

come a great favorite on account of its very easy culture and beautifully colored flowers. Its Marguerite-like blossoms, produced in great profusion, are 2½ to 3¼ inches in diameter. These are a unique glossy rich orange gold, which brilliant coloring is rendered more conspicuous by the dark disk surrounding the black zone. **Pkt., 10c.**

DIAMOND FLOWER (Inoposidium) (A)—A charming little thing for every window garden, growing only 2 or 3 inches high. The seed may be sown in the pots of other plants, resulting in a mass of minute green leaves and starry flowers which shine like diamonds. Colors White and Violet Blue. **Pkt., 10c; ¼ oz., 50c.**

ESCHSCHOLTZIA (CALIFORNIA POPPY) (A)—The State Flower of California; an annual of rich, rare tints of yellow and orange. About a foot in height, beautiful foliage and large, poppy-like flowers. **Pkt., 5c; ½ oz., 25c.**

FORGET-ME-NOT (MYOSOTIS) (P)—A modest little flower. A pretty trailer with blue flowers. **Pkt., 10c; ¼ oz., 50c.**

FOUR O'CLOCK (MIRABILIS) (A)—Is also called Marvel of Peru. A handsome, free-flowering, sweet-scented plant. They open their blossoms about four o'clock in the afternoon, hence their name. Hardy annuals. **Choice mixed, pkt., 5c; oz., 25c.**

GERANIUM (P)—Comparatively few are aware that Geraniums may be grown easily from seed and flower the first season if sown early. This is the best way to secure Geraniums, as they will frequently reward the cultivator with charming new varieties. In fact, propagation by seed is the only way to obtain new varieties. **Pkt., 15c.**

GODETIA (A)—An attractive, hardy annual deserving more extensive cultivation. The plants bloom profusely and bear showy flowers of rich and varied colors, one and one-half inches. **Mixed, pkt., 5c; ¼ oz., 15c.**

GYPHOPHILA OR BABY'S BREATH (A)—A pretty, free-flowering plant. Fine for bouquets. **Pkt., 5c; ½ oz., 25c.**

HOLLYHOCKS (P)

—These fine, old-fashioned perennials are most striking when planted in groups of long rows; their variety of color is wonderful. When plants are once obtained they last for several seasons. **Double mixed, pkt., 10c; ¼ oz., 40c.**

HELIOTROPE (P)

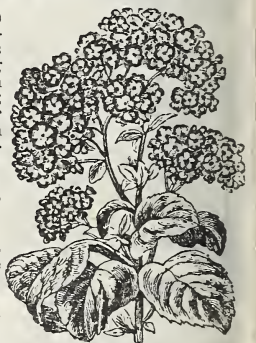
—everyone loves the delightful fragrance and beauty of the Heliotrope, but few know that it can be raised from seed as easily as the Verbena. To insure a long period of bloom seed should be sown early indoors. **Pkt., 10c; ¼ oz., 40c.**

ICE PLANT—Tender Annual Trailer—A pretty little trailer for baskets or massing; 6 inches high or less. Leaves covered with crystalline drops. Flowers white or pink. Valued for its remarkable foliage. **Pkt., 5c; ½ oz., 25c.**

JOB'S TEARS—Coix Lachryma—An annual ornamental grass, with broad, corn-like leaves and hard shining seeds of peculiar appearance, giving the plant its name. Two feet. **Pkt., 5c; oz., 15c.**

LOBELIA (A)—A very valuable and beautiful dwarf-growing plant, delicate drooping habit and profusion of charming little blue and white flowers.

Dwarf Single, mixed, pkt., 10c; ¼ oz., 35c. Single Tall Blue Speciosa, pkt., 10c; ¼ oz., 40c; Single Dwarf Blue Emperor William, pkt., 15c; ¼ oz., 50c.



Heliotrope

KOCHIA TRICHOPHYLLA (Mexican Fire Bush, or Summer Cypress) (A)—A quick growing foliage or hedge plant, very symmetrical and attractive in summer and fall. The foliage is as fine as moss and of clean, bright, green color. Early in the fall innumerable little flowers appear and the bush takes on a deep red tinge. Sow outdoors early in spring, covering one-fourth inch deep. Make the rows two feet apart and thin eighteen inches apart. For earlier blooming start indoors and transplant to open ground. Hardy; about two and one-half feet high. Pkt., 5c; ½ oz., 25c.

LARKSPUR—(Delphinium)—The Larkspur with its long clustered spikes of beautiful irregular flowers, often with long spurs, is especially valuable for its shades of blue. The annual forms are very desirable for bedding and the perennials are strikingly effective as a background for borders and for planting among shrubbery. Seed of annual varieties may be sown outdoors early in spring. For earlier blooming start very early indoors or sow in fall. Thin one to one and one-half feet apart. The perennial sorts are sown in fall or early spring.

Double Dwarf Rocket, mixed, pkt., 5c; ½ oz., 25c. Double Tall Rocket, mixed, 5c; ½ oz., 25c; Perennial, mixed, pkt., 5c; ½ oz., 25c; Perennial, Large Flowering, Dark Blue, pkt., 5c; ½ oz., 25c.

LINUM (Scarlet Flax) (A)—One of the most effective and showy bedding plants, of long duration, having fine foliage and delicate stems, with brilliant scarlet-crimson flowers; hardy annual; 1 foot. Pkt., 5c; oz., 25c.



Mignonette

MIGNONETTE RESEDA—A well-known fragrant favorite, and no garden is complete without a bed of Mignonette; sowings made in April and again in July will keep up a succession from early summer until frost.

ALLAN'S DEFIANCE—Spikes grow to a remarkable size and delicious fragrance. The individual florets are of immense size, forming a graceful as well as compact spike. Of extraordinary keeping qualities, retaining their grace and fragrance until every bud opens. Mixed, Pkt., 5c; ½ oz., 15c.

MIMOSA PUDICA (Sensitive Plant)—A curious plant with globular heads of small pink flowers, chiefly valued because of the extreme irritability of its leaves which close and droop at the slightest touch, also in cloudy, damp weather and at night. Start in hotbed in pots, and transplant to a warm situation six inches apart. Tender annual; height one and one-half feet. Pkt., 10c; ½ oz., 25c.

MIMULUS (P)—Moschatus, or Musk Plant. Cultivated for its rich musk odor. Should have a rich soil and ample moisture. Hardy. Pkt., 10c.

MARIGOLD (A)—Well known, extremely showy garden plant, with handsome double yellow and brown flowers of varied shades; succeeds in good garden soil.

French Tagetes, Tall Double Mixed, pkt., 5c; ½ oz., 25c. French Tagetes, Dwarf Double Mixed, pkt., 5c; ½ oz., 25c. African Double Tall, pkt., 5c; ½ oz., 25c.

NEMOPHILA—**BABY-EYES**—**LOVE-IN-THE-GROVE** (A)—A charming little annual plant, thriving especially well in moist, shady places, but quite at home in the open garden. The pretty, bell-shaped flowers, in shades of blue, and variously marked, are freely produced all summer. Plants eight inches in height; of neat, bushy habit. Pkt., 5c; ½ oz., 25c.

NASTURTIUMS

NASTURTIUM, TALL OR CLIMBING (A)—A very well-known ornamental, profuse flowering plant, adapted for rock work. The seeds, if picked young, are an excellent substitute for capers. Mixed, pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 45c; 1b., 85c.

NASTURTIUM, TOM THUMB OR DWARF (A)—When planted in beds or masses the brilliant effect of these splendid flowers is scarcely surpassed by any of our finest bedding plants. Mixed, pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 45c; 1b., 85c.

NIGELIA—**LOVE IN A MIST OR DEVIL IN THE BUSH**—**DAMASCENA** (A)—A compact, free-flowering plant, with finely cut foliage, curious-looking flowers and seed pods; of easy culture, growing in any garden soil; hardy annual, blue and white mixed. Height one foot. Pkt., 5c; ½ oz., 25c.

NICOTIANA—**AFFINIS** (Tuberoso-Flowered Tobacco) (A)—Delightfully sweet-scented, pure white tubular flowers, blooming continually; annual; two to three feet high. Pkt., 5c; oz., 25c.

PETUNIA

PETUNIA (A)—Is without a peer among annuals for effective summer bedding or indoor culture. It is of easy culture, early to bloom and continues throughout the summer until the first killing frost. No other flower produces a greater diversity of color, retaining its freshness for so long a period. The doubles may be perpetuated, if desired, by taking cuttings late in the summer, for winter house blooming plants. Provide good soil and a sunny location.



Single Mixed, pkt., 5c; ¼ oz., 40c; Single Fancy Mixed, pkt., 10c; ¼ oz., 60c.

DOUBLE FRINGED, PINK—Large, exceedingly double flowers of many bright colors. Very desirable. **Pkt., 30c.**

PENTSTEMON (P)—Handsome, half hardy, herbaceous perennials about two feet high and much in favor for bedding out. Flowers bell-shaped or tubular, an inch and a half long, borne in racemes or spikes, white and various shades of rose and purplish red striped with white. **Mixed, pkt., 5c.**

PORTULACA OR ROSE MOSS (A)—Brilliant, dwarf annuals, only six inches high, luxuriating in warm situations and blooming profusely from early summer to autumn. For low beds and masses of color, from spring until frost, they are indispensable; colors range through innumerable shades of red, yellow, pink, striped, white, etc.

Single Mixed, pkt., 5c; $\frac{1}{4}$ oz., 20c; Double Mixed, pkt., 10c; $\frac{1}{4}$ oz., 75c; Extra Double Mixed, large flowering, pkt., 25c.

PHLOX



PHLOX DRUMMONDII (A)—Of all summer-flowering annuals, the varieties of Phlox Drummondii are unquestionably one of the most brilliant and satisfactory. Seed may be sown in the open ground any time after danger from frost is past, and in a few weeks the beds or borders are aglow with their brilliant coloring and remain so until cut down by frost. For early flowering they should be started indoors or in a hotbed. **Grandiflora Mixed, pkt., 10c; $\frac{1}{4}$ oz., 50c.**

Perennial Mixed, pkt., 15c.

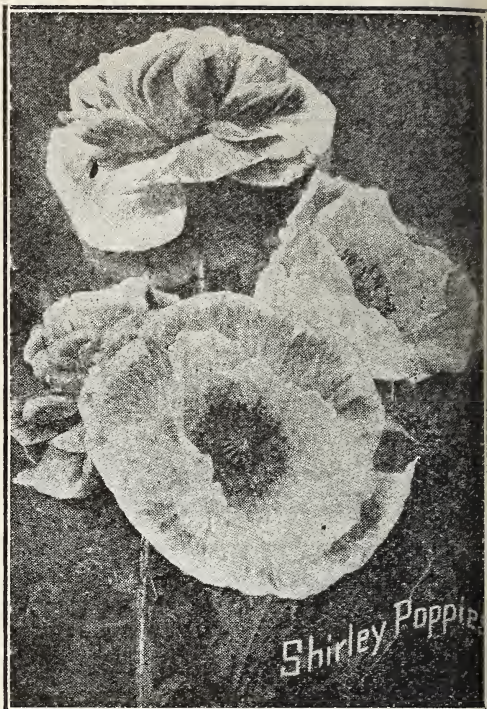
PRIMROSE — SINENSIS OR CHINESE (P)—The beautiful, large fringed flowers stand in pyramids arranged on short flower stems. Blossoms of every shade of color, from pure white to deep crimson, and even deep blue; especially fine for winter and spring flowers in the house; easily grown; free bloomers. Finest single mixed. **Pkt., 25c.**

POPPIES

Probably no class of plants enjoys greater popularity and is more widely grown than the annual poppies; this is especially true of the single varieties. They are easily grown, and should be sown in beds or wild patches, in early spring, where they will grow high above the grasses on tall, graceful stems.

CALIFORNIA (A)—See Eschscholtzia. **Pkt., 5c; $\frac{1}{2}$ oz., 20c.**

PEONY FLOWERED (A)—Large, showy, double, globular flowers; mixed. **Pkt., 5c; $\frac{1}{2}$ oz., 25c.**



SHIRLEY (A)—The most beautiful type of poppies, having soft, hairy foliage, and a variety of single blossoms in white, pink, lavender, purple, red and scarlet. Free blooming, and fine for bedding or tall border. **Pkt., 10c; $\frac{1}{2}$ oz., 25c.**

ICELAND (P)—A graceful, delicate variety, with dark red single flowers, the petals resembling crumpled tissue paper. The plant is low-growing, but the stems are long and slender. **Mixed, pkt., 10c; $\frac{1}{4}$ oz., 25c.**

ORIENTAL (P)—One of the showiest of perennials, with enormous flowers. The leaf is long and deeply cut and clothed with white, bristly hair. Beautiful among shrubs, roses and other perennials. **Mixed, pkt., 10c; $\frac{1}{4}$ oz., 50c.**

Single Mixed Annual, pkt., 5c; $\frac{1}{2}$ oz., 25c; Double Mixed (A) Annual, pkt., 5c; $\frac{1}{2}$ oz., 25c.

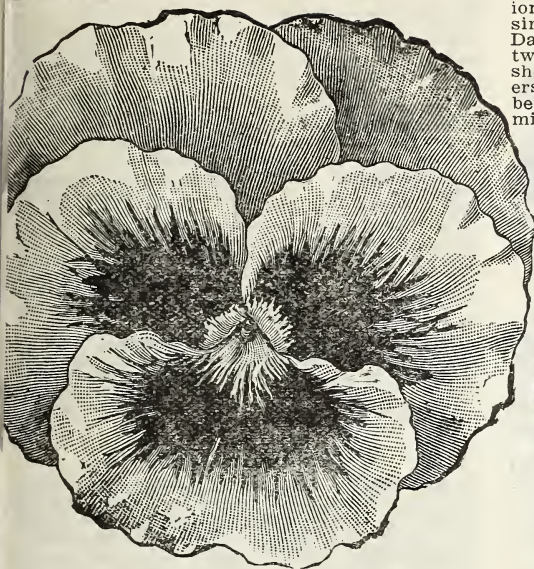
PANSIES

PANSY (VIOLA ARICOLOR) (P)—A half-hardy perennial, growing four to six inches high and probably the best known and among the most popular flowers in cultivation. It thrives best in a moist, shady location, and in rich, loamy soil. Seed should be sown in the autumn for early spring blossoms, or can be sown early in the year for good flowers later in the spring.

STEELE'S MASTODON PANSIES—For years the Steele Pansy Gardens have grown our Giant Pansies. These have been carefully re-selected and bred up to their present surpassing excellence, and for giant size, substance, form and coloring we have never seen Pansies to compare with them. Named varieties and special strains are grown separately and the seed collected by hand and carefully blended into what we believe to be the finest mixture ever offered. **Price, per pkt., 25c.**

LARGE FLOWERING MIXED—This mixture is considered a most excellent one, and is distinguished for its great variety, size of flower, diversity of color and markings and for its free-blooming. **Pkt., 20c; $\frac{1}{4}$ oz., 75c.**

PANSIES—Continued



TRIMARDEAU GIANT, MIXED—A splendid mixture of various shapes and markings. The blossoms are perfectly round and are blotched at the base. Pkt., 10c; $\frac{1}{4}$ oz., 50c.

FINE MIXED—Fine assortment of colors. Pkt., 5c; $\frac{1}{4}$ oz., 25c.

FAUST—King of the Blacks—Almost coal black. The darkest Pansy grown. Pkt., 15c; $\frac{1}{4}$ oz., 75c.

TRIMARDEAU CANDIDISSIMA—Snow white. Pkt., 20c; $\frac{1}{4}$ oz., \$1.00.

RICINUS, OR CASTOR OIL BEAN (A)—Ornamental plants of steady growth and picturesque foliage with brilliant colored fruit, producing a sub-tropical effect; fine for lawns, massing or center plants for beds. Pkt., 5c; oz., 20c.

SCHIZANTHUS (A)—Hardy annuals, growing one and one-half to two feet high and covered with bright, showy, butterfly-like blossoms. Large flowering. Mixed, pkt., 10c; $\frac{1}{4}$ oz., 40c.

SWEET SCABIOSA, OR MOURNING BRIDE (A)—Free-flowering annual; colors, white, carmine, lilac, maroon, etc. Very effective for garden decoration and valuable for cutting. Dwarf or tall double mixed. Pkt., 5c; $\frac{1}{4}$ oz., 25c.

SALVIA OR FLOWERING SAGE (P)—A tender perennial blooming the first season from seed and growing two to three feet high. The blossoms are borne on long stems in racemes or spikes, and are fragrant. The plant forms a bunch and blooms profusely during the whole summer and fall. Brilliant scarlet. Fine mixed, pkt., 10c; $\frac{1}{4}$ oz., 50c.

SNAPDRAGON, OR ANTIRRHINUM (P)—One of the most useful and showy of border plants. Of almost every color, and striped as beautifully as Carnations. They have recently been much improved and are now really magnificent. Hardy perennial.

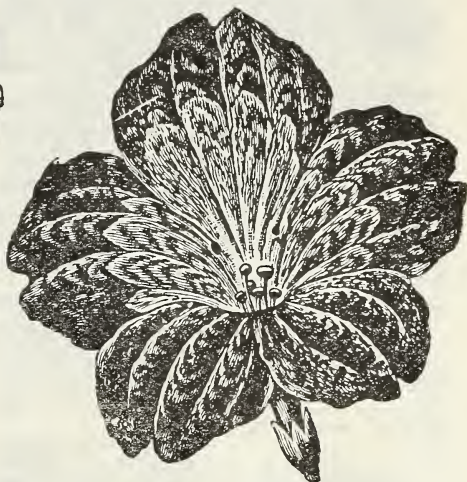
Finest Mixed, pkt., 5c; $\frac{1}{4}$ oz., 25c; **White** pkt., 10c; $\frac{1}{4}$ oz., 50c; **Pink**, pkt., 10c; $\frac{1}{4}$ oz., 50c.

SUNFLOWER (Helianthus)

Stately growing annuals with immense golden yellow flowers; effective for garden decoration.

DOUBLE DWARF—Covered with three-inch-double flowers of brightest golden yellow. Pkt., 5c; oz., 25c.

SWEET ROCKET (Hesperis)—Old-fashioned garden plant, and among the most desirable of hardy flowers; also known as Dame's Rocket and Dame's Violet; grows from two to three feet high, and bears spikes of showy white, lilac and purple fragrant flowers. Excellent for naturalizing among shrubbery or for planting in a permanent border; mixed colors. Pkt., 5c; $\frac{1}{4}$ oz., 25c.



Salpiglossis (Velvet Flower)

SALPIGLOSSIS (A)—The quaint, funnel-shaped flowers somewhat resemble those of the Petunia; beautiful range of colors. Mixed, pkt., 5c; $\frac{1}{4}$ oz., 25c.

LARGE FLOWERING DWARF, 10-WEEK STOCK (A)—This is the leading class for bedding out or summer-blooming. All varieties, mixed. Pkt., 10c; $\frac{1}{4}$ oz., 50c. Perennial Tall Mixed, pkt., 10c.

SWEET WILLIAM (P)—A well-known, attractive, free-flowering, hardy perennial, producing a splendid effect in beds and borders with rich and varied flowers. Mixed, pkt., 5c; $\frac{1}{2}$ oz., 25c.

THUNBERGIA (Black-Eyed Susan) (A)—One of the best trailing plants for veranda boxes, vases, etc. Neat, compact growth. The pretty flowers, an inch in diameter, are white, buff or yellow, with black eye. Mixed, pkt., 5c; $\frac{1}{4}$ oz., 25c.

VERBENA (A)—Very few annuals will make such a gorgeous display during the summer months or furnish more flowers for cutting than the Verbena. Start seed in the house or under glass early in the spring and transplant after three or four inches of growth. They flower in July and continue strong and healthy until destroyed by frost. Fine mixed, pkt., 5c; $\frac{1}{4}$ oz., 30c.

WALL FLOWER (P)—Produces spikes of beautiful, exceedingly fragrant flowers. Half-hardy perennial. Mixed. Single, large flowering. Pkt., 5c; $\frac{1}{4}$ oz., 25c.

VINCA (Periwinkle) (P)—These very attractive bushy plants with glossy green foliage produce in abundance handsome round or salver shaped single flowers, suitable either for culture in pots or boxes or for summer bedding and borders. If sown early under glass and transplanted in a warm, sheltered situation will bloom in summer and autumn and may be potted for the house before frost. The plants require no trimming, are in continuous bloom from setting out until frost and are entirely free from the attacks of insects. These desirable features account for the increasing demand for Vincas in parks and private grounds for summer bedding and borders. Tender perennial, blooming the first season, about fifteen inches high. Mixed, pkt., 10c.



VIOLETS (P)—*Viola Odorata* is the well-known English Violet, a free-flowering, hardy perennial. Easily grown from seed, though somewhat slow in germinating; succeeds best in partially shaded moist places. **Finest Mixed, pkt., 10c.**

WILD FLOWER GARDEN MIXTURE (A)—A garden is not complete without a bed of this mixture of flowering annuals. A package will sow a bed about two by ten feet, and if sown early in the spring will furnish continual bloom throughout the season. **Pkt., 10c; oz., 40c; ½ lb., \$1.00.**



ZINNIAS (Elegans Grandiflora Double) (Youth and Old Age) (A)—Is one of the most brilliant and showy annuls, and has long been a general favorite. The seed can be sown early in the hotbed and transplanted, or sown later in the open ground. They come in flower early in the summer, and keep on blooming until first frost. **Mixed, pkt., 5c; ½ oz., 25c.**

VINES FROM SEEDS

BEANS—Scarlet Runners—A great favorite, not only as an ornamental climber, but for the delicious edible beans which succeed the bright scarlet sprays of pea-shaped blossoms. **Oz., 10c; ½ lb., 15c; 1 lb., 35c.**

BEAN HYACINTH (Dolichos)—This really beautiful climbing plant is of quick growth; the foliage is handsome, and the clustered spikes of beautiful purple and white flowers are borne in great profusion. The shining purple seedpods are also very ornamental. Tender annual, growing six to eight feet. Seed should be sown where plants are desired, in as warm and dry a spot as possible. **Mixed, pkt., 5c; oz., 20c.**

BALLOON VINE (LOVE-IN-A-PUFF) (A)—A rapid growing annual climber; succeeds best in light soil and warm situation; flowers white; seed vessels like miniature balloons. **Pkt., 5c; oz., 25c.**

CANARY BIRD VINE (P)—A beautiful climber; flowers a bright golden yellow, bearing a fanciful resemblance to birds with expanded wings. **Pkt., 5c; ½ oz., 15c.**

COBAE SCANDENS (A)—One of the hand-somest and most rapid growing of the annual climbers. It climbs thirty feet in a season. The flowers are bell shaped and of a purplish lilac color. Very prolific and perfectly hardy. The vine is always clean of insects. **Mixed, pkt., 10c; ½ oz., 25c.**

GOURDS (ORNAMENTAL) (A)—Rapid growing, interesting annual climbers with handsome foliage and singular shaped fruit. **Mixed, pkt., 10c; oz., 35c.**

JAPANESE KUDZU VINE—The Kudzu Vine comes from Japan, the land so produc-

tive of curious and ornamental flowers. It is a beautiful climber, remarkable for its great vigor of growth and its handsome flowers. The blossoms are large and in panicles somewhat like the *Wistaria*, but larger in size and with better clusters. The color is a pleasing shade of purple. The foliage is luxuriant. The Vine is extremely rapid and dense in growth, perfectly hardy, increasing in size and beauty year after year; fine for arbors, verandas, etc. **Pkt., 10c; ½ oz., 40c.**

JAPANESE HOP (Humulus)—Variegated Japanese Hop. A charming climber, attaining a growth of 20 to 25 feet in a few weeks. The leaves (6 to 7 inches across) are beautifully marked and variegated with white yellowish green and dark green. Not injured by insects or by heat, and the vine retains its beauty until frost. Hardy, the roots living over winter, though it is not a true perennial. **Pkt., 10c; ½ oz., 25c.**

MOON FLOWER, OR IPOMOEA, MEXICANA GRANDIFLORA (A)—Rapid growing climber, belonging to the Morning Glory family. The flowers are large, waxy white and very showy. Black seeded. White seeded. **Pkt., 10c; ½ oz., 25c.**

MORNING GLORIES

MORNING GLORY (A)—Tall, new Japanese; the surpassing charm in this grand variety lies in the entrancing beauty and gigantic size of the flowers. **Pkt., 10c; oz., 25c.**

MORNING GLORY (A)—Tall, fine mixed, a great variety of colors of the popular old-fashioned sorts. **Pkt., 5c; oz., 15c.**

NASTURTIUMS

NASTURTIUM, TALL OR CLIMBING (A)—A very well-known ornamental, profuse flowering plant, adapted for rock work. The seeds, if picked young, are an excellent substitute for capers. **Mixed, pkt., 5c; oz., 10c; 2 oz., 20c; ½ lb., 30c; 1 lb., 45c; 1b., 85c.**

SMILAX (BOSTON IVY) (P)—Charming tender, perennial climber for greenhouse or window gardens. The foliage and stems are of a pleasing light green; very graceful; excellent for decoration. **Pkt., 10c; ½ oz., 25c.**

WILD CUCUMBER (A)—A well-known vine, common in many sections, and the quickest climber known for covering verandas, old trees and houses, trellises, etc., never suffering from the heat, but retaining its fresh, lively green color; never infested with insects and very profuse in bloom. **Pkt., 5c; oz., 25c; 2 oz., 40c; ½ lb., 70c; 1 lb., \$1.25; 1b., \$2.00.**

VINES FROM ROOTS

CINNAMON VINE—This climber is appropriately called Cinnamon Vine. Very hardy, the stem dying down every autumn, but growing again so rapidly as to cover completely any trellis or arbor early in the season. With its beautiful heart-shaped leaves and clusters of delicate white flowers, and most delicious cinnamon odor, is a most desirable climber. **Postpaid, each, 5c; doz., 50c.**

CLEMATIS JACKMANNI—Of strong growth, hardy nature, rich, deep velvety-purple flowers, is the most satisfactory of its class. Blooms with astonishing profusion. **Postpaid, 75c.**

HONEYSUCKLE—Grows vigorously, with yellowish white, fragrant flowers. **Postpaid, 50c.**

HOPS—Are the most rapid growers of any vine coming from the roots each spring. Their rapid growth and large broad leaves cover a porch before the arrival of the hot days of the summer. **Postpaid, doz., 60c.**

MADERIA VINE—A beautiful rapid climber, bearing graceful racemes of fragrant white flowers; very pretty and useful. **Postpaid, each, 5c; doz., 50c.**

VIRGINIA CREEPER—Has large, luxuriant foliage, which in autumn assumes the most gorgeous and magnificent color; one of the finest vines for covering trellises, or verandas. **Postpaid, 50c.**

SWEET PEAS

No garden is too small for a row of Sweet Peas and no estate, however extensive or magnificent, should fail to include many varieties of this most popular flower. Hundreds of varieties have been offered for sale by seedsmen but owing to recent marked improvements many sorts are decidedly inferior and have been dropped from our list.

CULTURE—Early in spring make a trench three to four inches deep in rich, mellow soil, so arranged that no water can stand in it and plant the seed in the bottom, covering at first only one inch deep. Sweet Peas, particularly the white seeded sorts, are often a little difficult to start. If the soil is too dry they will remain a long time without germinating; if it is too wet and cold they will not sprout at all. In soils at all heavy, or composed largely of clay, put about one inch of sand in the bottom of the trench and sow the seed in this, covering with more sand. Cover the row with a board to shed the rain and protect the soil from the hot sun but remove this as soon as the young plants appear. When the plants are two inches high, cultivate and as they grow gradually fill up the trench. When the plants are about five inches high it is desirable to furnish some support for the vines to run upon. The roots should not be allowed to become too dry. Water applied thoroughly once or twice a week, preferably early in the morning or in the evening, is usually better than light sprinkling more frequently. The blooms should be picked before they form pods or the plants will soon stop flowering.

All varieties of Grandiflora Sweet Peas: Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; $\frac{1}{2}$ lb., 45c; lb., 85c; postpaid.

White

BLANCHE BURPEE—A splendid pure white variety.

EMILY HENDERSON—A bold, well formed, clear white flower. Wings broad and well expanded. An early and wonderfully free and persistent bloomer.

DOROTHY ECKFORD—Pronounced by Sweet Pea experts to be the grandest pure white yet seen of the grandiflora type. Grows an enormous mass of blooms.

Purple and Maroon

COUNTESS CADOGAN—Large flowers. The color effect is that of a bright blue.

DUKE OF WESTMINSTER—Almost a clear purple.

OTHELLO—A dark rich maroon.

Pink and Rose Shades

KATHERINE TRACY—Rose pink. Splendid, large, open flower, good substance and color, a vigorous grower and free bloomer.

AURORA—Edges are delicate orange shading to a rose pink.

Lavender and Blue

COUNTRESS OF RADNOR—Self-colored in a very distinct and beautiful shade of lavender.

LORD NELSON, OR "BRILLIANT BLUE"—A brilliant dark navy blue with tips of wings a lighter blue. Giant flowers, slightly hooded.

Shades of Red

SALOPIAN—One of the most brilliant sorts yet introduced. The flowers are of faultless form, large and a rich, brilliant cardinal red.

FIBELLY—An intense crimson scarlet, of large open and expanded form. One of the best bright reds yet offered, and its fiery coloring makes it a most desirable bouquet variety.

Striped and Variegated

AMERICA—Bright red on a silvery white ground, showy.



Grandiflora Type

DAINTY—The beautifully formed large flowers, upon first opening, appear to be white, but quickly change to "white with pink edge"—making a most charming contrast.

SENATOR—Purplish maroon, heavily striped on a white ground. Darkest striped variety.

Red Standard White Wing

BLANCHE FERRY—Bright pink standard and nearly white wings.

All varieties of the foregoing Grandiflora Sweet Peas: Pkt., 5c; oz., 10c; $\frac{1}{4}$ lb., 25c; $\frac{1}{2}$ lb., 45c; lb., 85c.

Spencers

The last few years has seen a wonderful development in Sweet Pea culture. For many years previously the "Grandiflora" type had maintained an unchallenged leadership, and new types were very slow in making their appearance. About ten years ago, however, after several years of experimenting, a distinctly new type was developed in the gardens of Earl Spencer in England. The new flower was called "Countess Spencer," and from this magnificent sort has been developed that remarkable class of Giant Orchid-Flowered Spencer Sweet Peas known and admired throughout the horticultural world. The "Grandiflora" are somewhat better able to adapt themselves to adverse conditions and under such conditions do give greater satisfaction, but when properly grown the "Spencers" in size of blossoms, beauty of form, substance and color, the unusual number on a stem, and the long continuance of their season easily maintain an unapproachable leadership.

All varieties of Spencer Sweet Peas, unless otherwise quoted: Pkt., 10c; oz., 25c; 2 oz., 40c; $\frac{1}{4}$ lb., 75c; $\frac{1}{2}$ lb., \$1.25; lb., \$2.25.

ASTA OHN—Each stem bears four fine waved flowers. The color is a charming soft lavender, suffused with mauve.

DAINTY—It is a most beautiful pink-edged variety; the ground color is pure white with a very distinct margin of rose-pink. The general effect is light and dainty, as the white ground is particularly clear and glistening.

FLORENCE MORSE—Delicate blush with pink margin. Very large open wavy form of the best Countess Spencer type, with long stems and four blossoms to the stem. Perhaps better described as a light pink-edged Countess Spencer.

SWEET PEAS—Continued



White Spencer

FLORENCE NIGHTINGALE—Known to be the largest and best lavender Spencer yet introduced. The standard is unusually large and bold, pronouncedly waved, yet standing erect and broad—frequently measuring two inches across. The color is of a most charmingly soft clear rich lavender, which is enlivened by a very faint sheen of rose-pink. The large well-spread wings are of the same coloring, frilled and well waved, attracting universal admiration.

HELEN LEWIS—The orange-rose wings roll and fold; the standard is reflexed, showing the distinctly fluted effect, and is of an intense rich crimson-orange. The blooms are truly of a gigantic size—the ruffled standard measuring two inches across.

KING EDWARD VII.—The standard is a deep, rich carmine scarlet of glossy effect. The wings are also carmine scarlet, and on the reverse side are also a deep rose carmine.

MARIE CORELLI—The wings are a pure rich rose-crimson while the standard shows a tint of cherry-red. The whole effect is that of a brilliant crimson—clear, distinct and most beautiful. The standard is large, round

and wavy; the wings are full and inclined to remain boldly outright instead of drooping. The long strong stems usually bear four flowers each.

MRS. HUGH DICKINSON—One of the most chaste and charming varieties yet obtained. The coloring is a rich pinkish apricot on a cream ground, shading off rather lighter toward the center of the flower. The gigantic flowers are uniformly of the best Spencer type, and practically always borne in fours upon exceedingly long stems—and sometimes five flowers to a stem. The vines, of most vigorous sturdy growth, begin blooming early and continue to flower in wonderful profusion.

MRS. CHARLES MANDER—The flowers are enormous in size, waved and crinkled, of a deep velvety maroon, produces four flowers to a stem.

MAUDE HOLMES—A brilliant sunproof crimson of the largest size. Of true Spencer form, wavy and fluted. The perfect blooms are carried on extra long stems. A crimson of real merit.

OTHELLO—The flowers are beautifully waved or crinkled both in standard and wings. The long stems are thick and carry well either three or four fine blooms of a rich deep maroon. It is a strong grower and flowers most profusely.

PRIMROSE—The waved standard measures nearly two inches across; the crinkled wings are an inch across by one and one-eighth inches deep. The color is a clear primrose throughout.

PRINCESS VICTORIA—White blush and pink-edged Spencer.

PRINCE OLAF—The bold effective flowers are extremely large, of the true waved Spencer type, and have a most pleasing effect. The background is quite a deep primrose flushed with rose. The flowers are all of good substance borne three and four on a stem.

WHITE—Flowers pure white. Standard is waved, crinkled and fluted; three to four blossoms to a stem. Stems 12 to 15 inches in length.

All varieties of the foregoing Spencer Sweet Peas: Pkt., 10c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; lb., \$2.25.

Spencer Novelties

DOBBIES CREAM—This is regarded as one of the best yellow Spencers. The standards are large and beautifully curved. A free grower and bloomer and produces three and fours on long stiff stems.

KING WHITE—This famous novelty is in a class by itself. Too much cannot be said in praise of this unique new white Spencer. It is remarkable for the "glistening immaculate purity of the whiteness," and the perfect finish of the flower. Of truly gigantic size, the flowers are most exquisitely finished in every detail. King White has such marvelous substance that it is entirely free from the objectionable reflexing habit so generally found in the standard of other whites. The grand flowers are borne almost invariably in "fours" upon stout stems of great length. The bold, widely expanded standard is thoroughly waved, while the wings, also well waved, are beautifully placed. The plants are exceptionally vigorous in growth with distinctive rich green foliage, and wonderfully profuse in bloom for a long season.

ILLUMINATOR—It is almost impossible to adequately describe or paint the beauty and surpassing grace of this unique novelty. In color it is perfectly distinct from all other varieties and has been pronounced the most glorious Sweet Pea ever seen. It might be described as a rich glowing cerise-salmon, with an indication of bright orange suffusion, which marvelously scintillates and glistens under bright sunlight. Uniformly of large size and great substance. The flowers are most perfectly formed, and well placed on long stout stems, frequently in "fours." Of vigorous growth, the vines carry a rich profusion of bloom.

SWEET PEAS—Continued

ORCHID—No other lavender has all the qualities of Orchid; the flowers are softer in tone and more refined in contour. The color is rich deep lavender throughout, slightly suffused pink on both standard and wings. The flowers are practically of a self-color suggesting the rich tone found only in the Cattleya family of orchids. They are of extra large size, always borne three and four (with plenty of fours) on long stiff stems. The plants are most vigorous in growth and profuse flowering. While so profuse flowering, most of the flowers are dropped without producing any seed-pods.

STIBLING STENT—Excepting only the new Robert Sydenham this is the richest and brightest colored Sweet Pea in cultivation. Of the most advanced Spencer type, both standard and wings being beautifully waved, robust, vigorous and free-flowering habit, this unique variety must find a place in every garden. The color is a rich, glowing, deep salmon self, suffused with orange and practically sunproof even under the hottest suns. Of large size, the flowers are produced three and often four on long stems.

WEDGWOOD—Is a unique shade of lovely light blue. The flowers, of good size and substance, are well waved in both standard and wings; they are borne almost uniformly in four-flowered sprays upon long stout stems. Wedgwood is a color long sought for in Sweet Peas and has been eagerly welcomed by lovers of this beautiful annual.

Each of the above novelties: **Pkt.**, 15c; or

the entire six, 75c; oz., 35c; 2 oz., 65c; ¼ lb., \$1.25; ½ lb., \$2.25; 1 lb., \$4.00.

Unwins

This variety resembles the Spencers but are not quite as large, but are very vigorous and free bloomers and are very dependable.

GLADYS—Bright, clear pink, slightly deeper tint at the edges. Spencer form but a little smaller and flowers more freely.

NORA—Flowers very large, pure white with very broad standards and beautifully frilled. **Pkt.**, 10c; oz., 20c; 2 oz., 35c; ¼ lb., 65c; ½ lb., \$1.15; 1 lb., \$2.00.

Mixed

CLOVER LEAF SPENCER—In this mixture we have used only the choicest and best of the Waved Spencer and have taken every care to produce in the mixture a proper balance of colors. We are confident that in offering this truly incomparable blend we are giving our customers the opportunity of securing the cream of the latest and best efforts in Sweet Pea culture. **Pkt.**, 10c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; 1 lb., \$1.50.

CLOVER LEAF LARGE FLOWERING—This elegant mixture embraces the introductions, including the recent novelties of Mr. Eckford, the Sweet Pea specialist of England, who has accomplished more than any other individual in bringing the Sweet pea to its present state of beauty, size and perfection. **Pkt.**, 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 40c; 1 lb., 70c.

Bulbs**SUMMER FLOWERING**

There is nothing in floriculture that will give greater satisfaction or produce such grand results as this class of bulbs, which includes some of our showiest garden flowers. They are of the easiest culture. Planted in spring in good garden soil, they flower with great

certainly during summer and fall. The hardy sorts may remain in the ground over winter, but tender sorts should be taken up after the foliage dries in the fall, and the bulbs stored away in a dry, cool place until planting time the next spring.

CANNAS

Cannas should be planted in good, rich garden soil, mixed with half of old rotten stable manure by the end of May, when danger from frost is past. Water sparingly for first two weeks after planting. When growing freely, water liberally. They are quick growers and bloom continuously until frost. Inexpensive, these charming ornamental plants produce rich tropical effects that cannot be excelled, and they are equally valuable for the beauty of their bloom.

Special Large Flowering Cannas

We recommend the varieties offered under this head as the "cream of the well-tried sorts," a selection which for freedom of bloom, habit of growth and wide range of distinct and desirable colors it would not be possible to duplicate.

METEOR—A magnificent bedding variety, of strong, robust habit, with green foliage and enormous trusses of large, bright blood-red flowers freely produced well above the foliage; 5 ft.

HUNGARIA—The ideal pink bedding Canna; flowers large, in good sized trusses, produced early, freely and continuously, in color not unlike that of the Paul Neyron Rose. It possesses a softness and refinement not found in any other. 3 to 3½ feet.

30 each or the two for 50c.

Select Standard Varieties of Large Flowering Cannas

BRILLIANT—Rich yellow with two bright-red curling tongue-like petals in the center; 4 feet.

GLADIATOR—One of the finest bedders, color deep yellow freely dotted with red; 4½ feet.

GUSTAV GUMPER—This is the ideal rich yellow bedding Canna; the flowers of good size are held well above the foliage, the fine trusses always clean looking; in habit of growth very uniform; color a rich golden-yellow, a shade that has been missing heretofore; 3½ to 4 feet.

LOUIS REVERCHON—This was one of the best dark-leaved red-flowering varieties; the flowers are very large, of a cochineal-red color; 4½ to 5 feet.

RUBIN—The ruby-carmine flowers of this are not large, but are produced in profusion and are intensely rich and glowing, which, combined with the dark, bronzy-green foliage, make it one of the best bedding varieties; 3 feet.

SOUVENIR DE ANTOINE CROZY—Intense rich crimson-scarlet, with broad golden-yellow border; 3½ feet.

VENUS—One of the softest and most delicately colored varieties; the flowers are of fair size, of a soft rosy-pink, with a pretty mottled border of creamy-yellow; always present a clean, fresh appearance; 4 feet.

20c each, or the seven for \$1.25.

Italian or Orchid Flowered Cannas

Of the many orchid-flowered Cannas introduced those offered below are the most distinct and desirable. The habit of growth of all is remarkably vigorous, attaining a height of 6 feet, while their flowers frequently measure over 6 inches across.

AUSTRIA—Pure canary-yellow; fine large open flowers, with few reddish dots in the center of the two inside petals.

ITALIA—Bright orange-scarlet, with broad golden-yellow border; the flowers are held well above the massive foliage.

KING HUMBERT—In this grand Canna we have a combination of the highest type flowers

CANNAS—Continued

with the finest brown foliage. Its flowers measure 6 inches in diameter, produced in gigantic trusses, a brilliant orange-scarlet with bright red markings; foliage broad and massive, of a rich coppery-bronze.

25c each, or the three for 60c.

SPECIAL—One each of the above twelve varieties of cannas for \$2.00.

DAHLIAS

The Dahlia is one of the showiest of all autumn flowers. Commencing to flower in July, they are a perfect blaze of bloom until stopped by frost. Especially fine for cut flowers. They have been greatly improved and are growing in favor from year to year. The following selections have been made with the greatest care, and every one will be found to possess true merit, and with proper care and conditions will amply repay the care and attention that has been given them.

Cactus Dahlias

The Cactus forms of Dahlias are exceedingly beautiful, and are hard to excel. They have long twisted petals and embrace nearly all the colors and shades to be found in any of the other types. The petals being closely rolled outwardly, and the pointed ends standing apart, give a distinctly starlike form to the flowers; in some the long slender petals are charmingly curled. For large size, exquisite colors, elegance of form and profusion of bloom, these following varieties represent the latest and best in Cactus Dahlias.

RHEINKONIG—Pure snow-white flowers of splendid form, 5 inches and over in diameter. These are of great substance, lasting splendidly when cut; they are borne on long, stiff stems held well above the foliage, making it as valuable for garden decoration as for cutting.

BISMARCK—One of the best intense fiery-reds; gracefully formed flower, with incurved petals on stiff stems held well above the foliage.

50c each or the two for 40c.

BRUCE—A beautiful flower; long, incurving twisted petals of a yellow-salmon shading to amber-yellow in the center.

DELICATISSIMA—A perfectly formed flower and one of the most delicately colored varieties yet introduced; a splendid cut flower with good stems; color tender Hydrangea-pink, with lighter shadings.

FLORADORA—A remarkably free-flowering, bright blood-red.

KRIEMHILDE—A most popular cut flower

variety; perfect flowers on long stems; color a brilliant pink, gradually shading to white at the center.

LAWINE—White, with just a suggestion of blush as the flower matures; a fine, full large flower; one of the best.

STANDARD BEAVER—Rich, fiery-scarlet free and of perfect form.

25c each or the entire six, \$1.20.

Decorative Dahlias

The Decorative Dahlias are an intermediate form between the Show and Cactus types. Many beautiful varieties have been introduced some with flat petals, others reflexed, incurved or curiously twisted, but nearly all are without formality or stiffness, and practically all of them are leaders as cut flowers, bearing large, perfectly formed blooms on long, stiff stems, and standing in good condition longer than most kinds.

LE GRAND MANITOU—The best variegated Dahlia of the decorative type. The ground color white, prettily spotted, striped and blotched with deep reddish-violet; occasionally self-colored; these are borne on stout, stiff stems, held well above the foliage. 75c each

AUTUMN GLOW—A large, full flower of fine form, primrose-yellow with bronze shadings; a fine cut flower.

MRS. FURBUSH—The best dark variety, a rich purplish-garnet with maroon shadings flowers of good size and form, on stiff, wiry stems; an early, free and continuous bloomer

GAIETY—A good variegated or fancy variety; in color a bright strawberry red, each petal having a broad band of white through the center.

50c each or the three for \$1.25.

JACK ROSE—Brilliant crimson-red, similar in shade to the popular "Jack" Rose, which suggested its name; perfect for garden decoration or for cutting.

MONT BLANC—An early, free, continuous flowering creamy-white on good stiff stems. One of the most important cut-flower varieties.

SYLVIA—Soft, pleasing mauve-pink, gradually changing to white in the center. A fine cut flower.

WM. AGNEW—Rich, dazzling carmine red. A standard cut-flower variety.

30c each or the four for \$1.00.

Peony-Flowered Dahlias

The flowers produced by this class are remarkably large, with, as a rule, two rows of petals, somewhat ragged in appearance, producing their flowers in wonderful profusion, and for a very long period. Wherever they have been exhibited they have excited great wonder.

BERTHA VON SUTTNER—Exceptionally large flowers of a salmon pink color with yellow suffusion.

CZAR FERDINAND—An excellent free-flowering variety, with good shaped attractive flowers of a luminous reddish-purple; first-class in every way.

LE MAHDI—Very dark crimson, yet bright and attractive. Petals broad and nicely formed; very free.

75c each or the three, \$2.00.

FRITZIMANN—A brilliant geranium-red, and frequently producing flowers which are variously striped and variegated white.

FRAICHEUR DU MATIN—One of the freest flowering of this type; pure white with just a tint of yellow at the base of the petals; good stems, extra good for cutting.

35c each or the two, 60c.

Show Dahlias

They are especially desirable for large size, regular form, and beautiful colorings. This type of flower is most popular with florists for early autumn cutting; the flowers are all borne on long stems and bunch easily.

A. D. LIVONI—A splendid clear pink, beautifully quilled, of perfect form and very free flowering.

ARABELLA—Light sulphur-yellow, shaded peach-blossom on edges; a fine flower.

MISS MINNIE VOSBURG—The freest-

DAHLIAS—Continued

flowering white show variety yet introduced, coming into bloom early and continuing of good quality till the end of the season. The flowers ordinarily are about the same size as John Walker when well grown, being perfect white balls, always having a good, full center.

MME. ALFRED MOREAU—The most perfect large pure mauve-pink; a splendid flower.

PRINCESS VICTORIA—A sterling variety, being the earliest and freest-flowering prim-rose-yellow; never produces an imperfect flower and is in bloom early and late; long, stiff stems; fine for cutting.

RED HUSSAR—Pure cardinal-red. 30c each or the six, \$1.50.

Gladioli

Gladioli are the most satisfactory, desirable and popular of all the garden bulbs. Nothing else of the kind costs so little, grows and blooms so readily in any soil or climate as Gladioli. They thrive and bloom with the least care and attention, and make a display which for brilliancy and beauty of coloring few bulbs can equal and none surpass. Plant any time from March to June.



GLADIOLI CHILDSI—This wonderful new giant type originated in Germany; is of much stronger growth and larger flower than the original type.

Postpaid, 60c doz. Purchaser's expense, 50, \$2.00; 100, \$3.50.

Named Gladioli

AMERICA—A beautiful soft flesh pink. By far the most vigorous and easily grown Gladiolus known. Strong and healthy with luxuriant dark-green foliage and a freedom of growth and flowering surpassing all others. Spikes two to three feet long, erect with a great number of large spreading blossoms, all facing one way and showing a color, the delicacy and beauty of which it is impossible to describe or reproduce. It is an exquisite, soft lavender pink, very light, almost a tinted white.

Each, 10c; ½ doz., 40c; doz., 75c.

AUGUSTA—Flowers are of perfect paper-white, with a slight pink shade on lower half of the petal. The spike is set solid and perfect, with the flowers from top to bottom.

Each, 10c; ½ doz., 40c; doz., 75c.

BARON HULOT OR BLUE JAY—Good-sized flower, well arranged on straight spikes; color, dark violet bordering on blue. Each, 15c; ½ doz., 75c; doz., \$1.25.

PINK BEAUTY—This is truly named Beauty, because it is all that this name implies or can imply. For beauty of color, stateliness of form it is one of the best. Each, 10c; ½ doz., 40c; doz., 75c.

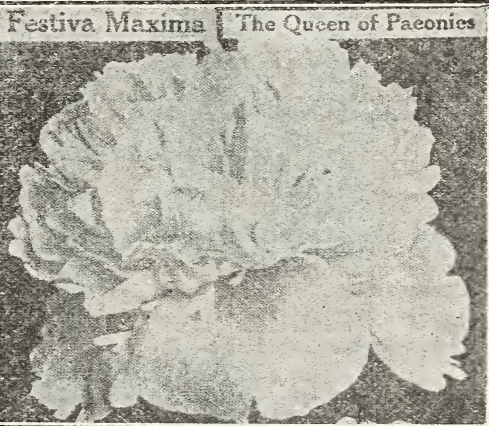
PRINCEPS—The Amaryllis-flowered Gladiolus. A most striking variety. The individual flowers are 5½ inches in diameter and sometimes one inch larger. The petals are very wide and rounded, well reflexed, forming an almost circular flower. The color is brilliant scarlet-crimson with three broad white blotches on the lower petals. Spikes produce 12 to 15 flowers and grow 4 feet in height. It is exceptionally healthy and its flowering is continuous. Each, 10c; ½ doz., 40c; doz., 75c.

SPECIAL OFFER—Two each of the named varieties and two of Gladioli Childsi, 75c doz.

LILY OF THE VALLEY—One of the most satisfactory and charming spring flowering plants, producing in profusion its delicate bell-shaped, delightfully fragrant white flowers. Lillies of the Valley thrive in any common soil, are perfectly hardy, and will succeed in shady situation. Selected tips, each, 5c; doz., 40c; 50, \$1.50; 100, \$2.75; post-paid.

**Peonies**

There is no hardy perennial which equals the Peony in beauty and usefulness. Once planted, the plants and flowers increase in size and beauty with age. They are as hardy as oaks and as handsome (many as fragrant) as roses. When the plants are through blooming they are as handsome and ornamental as most of the hardy shrubs. The plants are practically immune from insects. We would advise our customers to beware of "cheap" Peonies. An inferior variety will take as much care and space as a choice one, and the first cost of a Peony is nothing compared to the disappointment after years of waiting.



ASA GRAY—Bright lilac, sprinkled with minute dots of deeper lilac as if dusted on; very large.

FELIX CROUSSE—Large, ball-shaped bloom; very brilliant red; one of the finest self-colored varieties.

LA TULIPE—Very large globular flesh-pink shading to ivory-white, center petals tipped carmine; one of the best. A vigorous grower and free bloomer.

60c each or the three, \$1.50.

DELACHEI—Very large cup-shaped flowers, deep crimson-purple.

FESTIVA MAXIMA—This truly superb variety, the finest white in cultivation, combines wonderful purity of color, freedom and earliness of flower.

L'ECLATANTE—Large, showy, brilliant red flowers in clusters.

L'INDISPENSABLE—Immense flowers of a delicate lilac pink with darker shading towards the center; late flowering.

MARIE LEMOINE (Lemoine's)—Extra large, late free-flowering ivory-white.

50c each or the five, \$2.00.

CANARY—One of the freest-flowering, of medium size, pure white guard petals with amber-white center.

QUEEN VICTORIA—A strong-growing pure white variety with creamy-white center. 35c each. One each of the entire ten, \$4.00.

ROOTS—FLOWERING HARDY PERENNIALS

	Time of Flowering	Height Inches	Color	Each Post Paid	Doz. Not Post Paid
ACANTHUS (Bears Breech)					
1. Spinosissiums -----	Aug.-Sept.	15	Rose	\$.30	\$2.50
ACHILLEA (Millfoil or Tarrow)					
2. Ptarmica, The Pearl -----	June-Sept.	30	White	.30	2.50
3. Boule de Neige -----	June-Sept.	30	White	.30	2.50
ACONITUM (Monk's Hood)					
4. Napelus -----	July-Aug.	24	Purple	.30	2.50
ALYSSUM (Mad-Wort)					
5. Saxatile -----	April-May	12	Yellow	.30	2.50
ANCHUSA					
6. Italica, Dropmore -----	June-Sept.	36	Dark Blue	.30	2.50
7. Italica, Opal -----	June-Sept.	36	Light Blue	.30	2.50
8. Sempervirens -----	June-Sept.	36	Light Blue	.30	2.50
ANEMON (Windflower)					
9. Japonica Alba -----	Aug.-Oct.	24	White	.30	2.50
ANTHERICUM (St. Bruno's Lily)					
10. Liliastrom -----	May-June	18	White	.30	2.50
AQUILEGIA (Columbine)					
11. Jaetschant's -----	June-Sept.	30	Red and Yellow	.30	2.50
12. Rose Queen, Rocky Mt. -----	June-Sept.	30	Pink	.30	2.50
13. Coerulea, Rocky Mt. -----	June-Sept.	30	White and Blue	.30	2.50
ARABIS (Rock Cress)					
14. Grandiflora Sup. Single -----	April-June	8	White	.25	2.00
15. Grandiflora Sup., Double -----	April-June	8	White	.30	2.50
16. Rosea, Single -----	April-June	8	Rose	.25	2.00
ASTER (Perennial)					
17. Amellus, Perry's Favorite -----	Aug.-Oct.	30	Rose	.30	2.50
18. Amellus, Roseus, Mixed -----	Aug.-Oct.	30	Mixed	.25	2.00
19. Townshendly -----	Aug.-Oct.	30	Lilac	.25	2.00
20. Longipedaloides Goliath -----	Aug.-Oct.	30	Mixed	.25	2.00
21. Hybridus -----	Aug.-Oct.	30	Mixed	.25	2.00
22. Alpinus -----	May-June	6	Purple	.25	2.00
CAMPANULA (Canterbury Bell)					
23. Calycanthema, Cup and Saucer, Can be furnished in White, Blue, Pink, Carmine and Lilac.	June-July	30		.25	2.00
24. Percicifolia Pfizeri -----	June-Oct.	30	Blue	.30	2.50
25. Percicifolia, Moerheimi, Everlasting -----	June-Oct.	30	White	.30	2.50
CHRYSANTHEMUM (Shasta Daisy)					
26. Maximum Triumph -----	May-Aug.	30	White	.30	2.50
27. Alaska -----	May-Aug.	30	White	.30	2.50
COREOPSIS					
28. Lanceolata -----	May-Oct.	24	Yellow	.30	2.50
29. Grandiflora -----	May-Oct.	24	Yellow	.30	2.50
DELPHINIUM (Larkspur)					
30. Kelway's Novelties, Single -----	June-Oct.	60	L. Dark Blue	.30	2.50
31. Kelway's Novelties, Double -----	June-Oct.	60	L. Dark Blue	.30	2.50
32. Kelway's Novelties, Mixed -----	June-Oct.	60	Mixed	.25	2.00
33. Belladonna -----	June-Oct.	60	Blue	.30	2.50
34. Elatum Le Mastodonte -----	June-Oct.	60	Dark Blue	.30	2.50
35. Hybridus -----	June-Oct.	60	Mixed	.30	2.50
36. Formosum -----	June-Oct.	48	L. Dark Blue	.30	2.50
37. Dwarf Ultramarine Blue -----	June-Oct.	--	Blue	.30	2.50
38. Chinensis -----	June-Oct.	--	Dark Blue	.30	2.50
DIANTUS BARBATUS (Sweet William)					
39. Dark Crimson, Double -----	June-Aug.	24	Crimson	.30	2.50
40. Blueish, Double, extra fine -----	June-Aug.	24	Blue	.30	2.50
41. Single -----	June-Aug.	24	Scarlet-Crimson	.30	2.50
42. Salmonouse, Single -----	June-Aug.	18	Salmon	.30	2.50
43. Snow White, Single -----	June-Aug.	24	White	.30	2.50
DIGITALIS (Foxglove)					
44. Gloxineafflora -----	June-Aug.	60		.30	2.50
Can be furnished in White, Red and Purple.					
45. Purpurea Monstrosa, Mixed -----	June-Aug.	60	Mixed	.30	2.50
DIELYTRA (Bleeding Heart)					
46. Spectabilis -----	May-June	24	Rose	.35	3.00
DORONICUM (Leopards Bane)					
47. Clusii, Columae, Excelsinum -----	May-June	24	Yellow	.30	2.50
GAILARDIA (Blanket Flower)					
48. Grandiflora -----	July-Oct.	18	Yellow	.30	2.50
GEUM (Avens)					
49. Atrosanguineum -----	June-Nov.	18	Scarlet	.30	2.50
50. Coccineum, Winchmore Hill -----	June-Nov.	18	Scarlet	.30	2.50
GYPHOPHILA (Babies Breath)					
51. Pamiculata -----	April-June	30	White	.30	2.50
HELIOPSIS (Sunflower)					
52. Scaba Major -----	July-Oct.	48	Yellow	.30	2.50

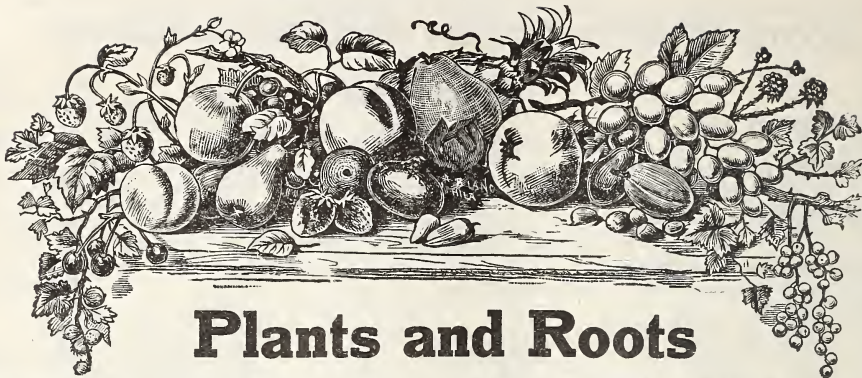
ROOTS—FLOWERING HARDY PERENNIALS—(Continued)

	Time of Flowering	Height Inches	Color	Each Post Paid	Doz. Not Post Paid
HEMEROCALIS (Day Lily)					
53. Flavo -----	June-July	30	Yellow	\$.30	\$2.50
HESPERIS (Rocket)					
54. Matronalis Nana Candissima -----	June-Au.	24	White	.30	2.50
HOLLYHOCKS					
55. Large Field, Double -----	July-Sept.	50		.30	2.50
Can be furnished in Scarlet, White and Yellow.					
ISERIS (Hardy Candytuft)					
56. Sempervirens, Little Gem -----	April-July	10	White	.30	2.50
IRIS (German)					
57. Queen of the Gypsies. -----					
\$4.00 per 100 -----					
58. Pallida Delmatica -----	May-June	36	Old Gold	.10	.60
59. Mme. Chercan -----	May-June	36	Blue	.25	2.00

60. Honorabilis -----	May-June	30	White Edged	.20	1.50
61. Iris, Japanese, Mixed -----	July	30	with Blue	.25	1.50
62. Iris, Siberian -----	May-June	24	Yellow-Brown	.25	2.00

			Blue-White	.25	2.00
			Blue	.25	2.00
LICHNIS (Campion)					
63. Alpina Dwarf -----	Apr-May	8	Rose	.20	1.50
LUPINUS					
64. Arboreus, New Hybrids -----	July-Aug.	36	Yellow	.30	2.50
65. Polyphyllus Roseus -----	July-Aug.	36	Rose	.30	2.50
MONARDA (Berganot)					
66. Didyma -----	July-Aug.	24	Scarlet	.30	2.50
PAPAVER (Poppy)					
67. Iceland -----	All Summer	15	Mixed	.20	1.50
68. Oriental, Mammoth -----	July-Aug.	30	Scarlet	.30	2.50
69. Oriental, Brilliant -----	July-Aug.	30	Scarlet	.30	2.50
70. Oriental, Queen Alexandra -----	July-Aug.	30	Salmon	.30	2.50
PENTSTEMON (Beard Tongue)					
71. Gendianoides Albus -----	July-Aug.	36	White	.30	2.50
PHLOX					
72. Unnamed varieties, assorted					
colors -----					
73. P. R. Struthers, New	July-Aug.	30	Any Color	.25	2.00
Hybrid -----					
74. Widar, New Hybrid -----	July-Aug.	30	Rose	.30	2.50
75. Rheinstrom, New Hybrid -----	July-Aug.	30	Blue	.35	3.00
76. Mme. Dutry, New Hybrid -----	July-Aug.	30	Light Red	.30	2.50

			Light Pink	.30	2.50
PHYSALIS (Japanese Latern Plant)					
77. Franchetty -----	Fall	18	Red	.25	2.00
POLEMIUM (Jacob's Ladder)					
78. Coeruleum, Grandiflorum -----	June-July	24	Blue	.25	2.00
79. Richardson's Dwarf -----	April-May	18	Blue	.25	2.00
PYRETHRUM					
80. Roseum Hybridum -----	June-July	24	Mixed	.25	2.00
RUDEBEKIA (Golden Glow)					
81. Laciniata, fl. pl. -----	July-Sept.	72	Yellow	.25	2.00
SALVIA (Meadow Sage)					
82. Turkestanica Alba -----	July-Aug.	24	White	.30	2.50
83. Turkestanica Rubra -----	July-Aug.	24	Red	.30	2.50
84. Ringens -----	July-Aug.	24	Purple	.30	2.50
SCABIOSA					
85. Caucasica Perfecta -----	June-Sept.	30	Blue	.30	2.50
86. Caucasica Alba -----	June-Sept.	30	White	.30	2.50
SEDUM (Stone Crop)					
87. Fabria Atrapurpureum -----	June-Sept.	18	Red	.30	2.50
SIDALCEA					
88. Malvae Flowering					
Atrapurpurea -----					
	July-Sept.	30	Red	.30	2.50
SPIREA (Meadow Sweet)					
89. Filipendula -----	June-Aug.	36	White	.30	2.50
SOLIDAGO (Golden Rod)					
90. Spectabilis -----	July-Sept.	40	Yellow	.30	2.50
TRITOMA (Flame Flower)					
91. Pfizeri -----	July-Nov.	36	Red	.30	2.50
VERBASCUM					
92. Giganteum -----	July-Aug.	60	White	.30	2.50
VERONICA					
93. Spicata -----	June-Aug.	18	Blue	.30	2.50
VIOLET					
94. Common Hardy -----	Spring and Fall	6	Blue	.15	1.00
WAHLBERGIANA					
95. Grandiflora Dublex -----	July-Aug.	--	Blue	.25	2.00
Grandiflora Alba -----					
	July-Aug.	24	Mixed	.25	2.00



Plants and Roots

We grow large quantities of vegetable plants, and can supply all of the varieties listed below, in their proper season, in most any quantity. We have made arrangements this year so we can supply all vegetable plants in two grades—plants direct from the seed beds and those that have been transplanted into shallow boxes.

TRANSPLANTER PLANTS are much stronger and better rooted and are well worth the price, especially in the early part of the season.

For description of flowering plants, perennials and annuals, see list of flower seeds, pages 22 to 31.

PLANTS FLOWERING Perennials and Annuals

Prices			Prices		
Variety	Postpaid Doz.	Postpaid 100	Variety	Postpaid Doz.	Postpaid 100
Alyssum	----- \$0.30	\$1.60	Mignonette	----- \$.30	\$1.60
Asters	----- .30	1.50	Nasturtiums, tall	----- .30	1.60
Daisies	----- .30	1.60	Nasturtiums, dwarf	----- .30	1.60
Candytuft	----- .30	1.60	Nicotiana	----- .30	1.60
Carnations	----- .30	1.60	Pansies	----- .30-.60	1.75-3.50
Cosmos	----- .35	1.80	Petunia	----- .35	1.80
Dahlias	----- .35	1.80	Phlox	----- .30	1.60
Dusty Miller	----- .30	1.60	Salvia	----- .35	1.80
Forget Me Not	----- .30	1.60	Snapdragons	----- .30	1.60
Geranium, 3-inch pots	----- .25 each	2.50 doz.	Stocks	----- .35	1.80
Heliotropes	----- .35	1.80	Sweet Williams	----- .30	1.60
Lobelia	----- .30	1.60	Verbenas	----- .30	1.60
Marigold	----- .35	1.80	Wallflowers	----- .35	1.80
			Zinnias	----- .35	1.80

PLANTS—VEGETABLES

Variety	Prepaid		By Express, Not Prepaid			
	Doz.	50	100	1000	5000	
Brussels Sprouts	-----	\$0.25	\$0.35	\$0.60	\$3.50	\$
CABBAGE—						
Early Jersey Wakefield, transplanted	-----	.25	.50	.75	5.00	
Early Jersey Wakefield, not transplanted	-----	.20	.35	.50	3.00	
All Head Early, not transplanted	-----	.20	.35	.50	3.00	
Danish Ball Head, not transplanted	-----	.20	.35	.50	2.50	10.00
Red, not transplanted	-----	.20	.35	.50	4.00	
Copenhagen Market, not transplanted	-----	.20	.35	.50	3.00	
CAULIFLOWER—						
Snowball, transplanted	-----	.30	.75	1.00	7.50	
Snowball, not transplanted	-----	.25	.50	.75	4.00	15.00
CELERY—						
White Plume, transplanted	-----	.20	.50	.65	4.00	
White Plume, not transplanted	-----	.20	.35	.50	3.25	15.00
Golden Self-Blanching, transplanted	-----	.25	.50	.65	4.00	
Golden Self-Blanching, not transplanted	-----	.20	.35	.50	3.25	15.00
Winter Queen, not transplanted	-----	.20	.35	.50	3.00	13.00
Celeriac	-----	.25	.75	1.00		
Egg Plant	-----	.30	.75	1.00	6.00	
Endive	-----	.30	.75	1.00		
Kale	-----	.25	.75	1.00		
Kohl Rabi	-----	.25	.75	1.00		
Mustard	-----	.25	.75	1.00		
Parsley	-----	.25	.50	.75		
PEPPERS—						
Ruly King, transplanted	-----	.25	.50	.75	4.00	
Bull Nose, transplanted	-----	.25	.50	.75	4.00	
Cayenne, transplanted	-----	.25	.65	1.00	5.00	
Cherry, transplanted	-----	.30	.65	1.00	5.00	
Sage, transplanted	-----	.30	.75	1.00		
TOMATOES—						
Earliana, transplanted	-----	.30	.50	.75	5.00	20.00
Earliana, not transplanted	-----	.25	.35	.50	3.00	12.50
Dwarf Champions, transplanted	-----	.30	.50	.75	5.00	20.00
Dwarf Champions, not transplanted	-----	.25	.35	.50	3.00	12.50
Husk or Ground Cherry, transplanted	-----	.30	.75	1.00		

PLANTS AND ROOTS—Continued

Variety	ROOTS				
	Prepaid Doz.	50	By Express, 100	Not Prepaid 1000	5000
ASPARAGUS—					
Palmetto, 1 year old -----	\$.25	\$.50	\$.75	\$5.00	\$22.50
Palmetto, 2 years old -----	.30	.75	1.00	7.00	30.00
Palmetto, 3 years old -----	.35	1.00	1.50	9.00	
Top -----	.60	1.25	2.00		
Horseradish -----	.25	.50	.75	5.00	
Mint -----	.60	1.25	2.00		
Chives, small bunch -----	Each	Doz.	50	100	500
Rhubarb, 1 year old -----	postpaid, 15	1.00			
Rhubarb, 2 years old -----	.20	.75	2.00	3.50	10.00
	.25	1.00	3.50	6.00	16.00

STRAWBERRIES

AROMA—Among the best of the late ripening varieties. In comparison with the Gandy, it will be found that it commences to ripen a little earlier and will continue to the end of Gandy's season and is similar to it in size and productiveness. Quality the best of any, comes nearer being the true strawberry flavor than all others. Its shipping qualities are of the best.

CLARK'S SEEDLING—This variety originated in our state, a seedling of the old popular Wilson variety. Like the Hood River, a near relation, it is unsurpassed as a shipping variety and in some sections very prolific.

GANDY—A variety that has not yet today found its equal as a truly reliable and all-round late producing berry. The plant is a rampant grower, having strong fruit stems, holding a heavy weight of the fruit erect; slow in forming, and maturing, therefore coming into the market when the early and mid-season varieties are about done fruiting.

GLEN MARY—A bright handsome, prolific, standard sort, grown the country over and perfectly reliable. Some large growers claim for this the par excellence in strawberries.

GOLD DOLLAR—An extra early variety originating in California. It is very productive and great promises are made for its future place in the strawberry world.

HOOD RIVER—The leading standard shipping variety. The berry that has made the town of its name famous, and its growers financially rich. Dark red color, uniform size, good quality, but not heavy in yield. A spe-

cialty berry for the grower whose market is somewhat distant.

MAGCON—Of first quality, great productiveness, attractive shape and color; good for canning.

MARSHALL—Produces remarkably large, beautiful fruit, resembling the far-famed Glen Mary, that we are pleased to add it to our list and put it in the Magoon and Senator Dunlap class, which is sufficient to guarantee its favor.

OREGON—This variety is of late introduction and somewhat resembles the old Wilson type of a strawberry. With a fadeless, dark red exterior; the deep red color is extended clear to the center of the fruit. Exceptionally fine for canning and attractive in the box. Any variety that we offer will fertilize it except Gandy or Aroma.

SENATOR DUNLAP—Its color is a rich dark red, with glossy finish. It has become a very popular variety, perhaps on account of its uniformity.

WARFIELD—The most popular pistillate variety grown. It is a large, beautiful, cone-shaped berry with a fadeless, dark red exterior; the deep red color is extended clear to the center of the fruit. Exceptionally fine for canning and attractive in the box. Any variety that we offer will fertilize it except Gandy or Aroma.

WM. BELT—Nothing better for quality, shape and attractiveness. A reliable and trustworthy variety; ripens evenly; prolific and will meet the expectations of the most fastidious.

	Doz.	25	By Express,	Not Prepaid	
	Post-	paid	200	300	400
	paid	Postpaid	100	200	300
AROMA (S) -----	\$.30	\$.50	\$.90	\$1.40	\$2.00
CLARK'S SEEDLING (S) -----	.30	.50	.85	1.35	1.80
GANDY (S) -----	.30	.50	.90	1.40	2.00
GLEN MARY (S) -----	.30	.50	.90	1.40	2.00
GOLD DOLLAR -----	.30	.50	.90	1.40	2.00
HOOD RIVER (S) -----	.30	.50	.85	1.35	1.80
MAGCON (S) -----	.30	.50	.85	1.35	1.85
MARSHALL (S) -----	.30	.50	.90	1.40	2.00
OREGON -----	.30	.50	.90	1.40	2.00
SENATOR DUNLAP (S) -----	.30	.50	.85	1.35	1.85
WARFIELD (S) -----	.30	.50	.90	1.40	2.00
WM. BELT (S) -----	.30	.50	.85	1.35	1.85

Everbearing

The following two varieties are highly recommended as it is believed they surpass all other varieties of everbearing strawberries. Well worth a place in the garden or field. Prepaid, doz., 70c; 25, \$1.15. Not prepaid, 100, \$3.00. Add 25c per 100 on all strawberry plants if forwarded by parcel post.

RASPBERRY—Cuthbert—The leading and popular variety—a most prolific bearer of matchless fruit.

	Postpaid	Not Postpaid
	Each	Doz.
One year -----	\$0.15	\$1.15
Two year -----	.20	1.50
Three year -----	.30	2.75

Clover Leaf Chick Feed

Made from the purest and best materials in correct proportions, for young chicks

Seed Potatoes

CULTIVATE—Potatoes can be grown in any soil, provided it is well drained, but, if grown on sandy, rich soil, they will be of better quality than if planted on clay soils. Sod land is most excellent for this crop. It is best to put the manure on one year before the potatoes are to be planted, and in no case raw stable manure should be used, as it is liable to give the scab. In cutting potatoes for planting, do not cut the pieces too small and be sure to have 1 to 3 eyes on them, according to the kind. The constant use of very small tubers should be avoided, or they are likely to run out. The sets should be planted from 3 to 4 inches deep, according to the time of planting, in rows 3 feet apart and 16 to 18 inches in the rows.

Prices on Potatoes subject to change. Write for definite prices, stating amount wanted, or we will send full value for money received at price prevailing on day order is received.

NETTED GEM—

The hardest, most vigorous in growth, most productive, and the best in table quality of all potatoes. It has proved to be unequalled for main crop. The vines are strong, with deep green foliage. In form the tubers are medium long. The eyes are small and there is very little waste in peeling. The skin is thin and very smooth with the exception of very small depressions which give it the appearance of being netted and from which it derives its name. The flesh is fine grained and cooks up mealy white. It is very free from scale and one of the very best keepers on the market.



Netted Gem

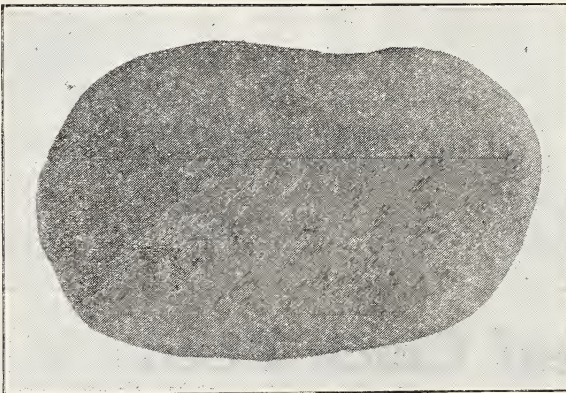
EARLY MICHIGAN—This is a second early, rather long, white potato, which produces in time to command the high early market prices and yet yields a crop which compares favorably with the standard late kinds and twice as heavy as the earlies.

EARLY OHIO—A leading early sort, earlier than the Early Rose, but not so productive. Round, short, and thick tubers, smooth and solid; cooks dry and mealy and matures very early.

EARLY ROSE—This variety has been a great favorite for many years and many growers still claim that it has never been excelled in quality and productiveness. Potatoes are long in shape, good size and light pink in color at the bud end. They cook mealy and are of the finest flavor.

BUREANK—A Late Variety—Continues in good demand and is more largely used than any other. Is of good size, of fine form and an excellent yielder. The flesh is white, very mealy and of fine flavor and quality.

MacGREGOR—This new, late potato originated in Manitoba about six years ago and it immediately became a general favorite. In appearance it closely resembles the old, well-known Carmen No. 3, same shape, with nice white netted skin, a grand good cooker at all times, a remarkable keeper and a tremendous yielder. One of the most noticeable features of this potato is its wonderful vigor.



MacGregor

We quote all of the foregoing potatoes at: 10 lbs., 50c; 25 lbs., \$1.00; 50 lbs., \$1.50; 100 lbs., \$2.50. If wanted by mail add postage to above prices. If interested in any quantity write for prices, stating amount and variety wanted, as these prices may be changed. On all open orders we will send full value for amount of remittance received.

OUR HOBBIES—QUALITY AND SERVICE

INCREASE Crop Yields and Soil Fertility By Using Standard Inoculation

50 Cents Per Acre 50 Cents

ALFALFA
must have
BACTERIA
to produce
BEST RESULTS

"The peculiar value of legumes for maintaining and increasing the fertility of soils is due to certain bacteria which develop nodules upon the roots of leguminous plants and which have the unique power of rendering the free nitrogen of the atmosphere available for plant growth. Without these bacteria, legumes, like other crops, exhaust the soil of its combined nitrogen." Ext. Farmer's Bulletin No. 315.



**PURE-BRED
BACTERIA**
an
**ECONOMIC
NECESSITY**

"The importance of using selected seed for all crops has been so amply demonstrated that no argument in favor of the practice is needed. It is the very foundation of progress in plant culture. Soil bacteria are no exceptions to the rule, and pure-bred bacteria for specific work are as clearly an economic necessity as pure-bred cattle or pure-bred sugar beets." Ext. Yearbook of Dept. of Agriculture for 1906.

**STRONG ALFALFA PLANT AND NUMEROUS NODULES
PRODUCED WITH STANDARD INOCULATION.**

Alfalfa Can Be Successfully Grown

On some part of nearly every farm by sowing good seed, thoroughly inoculated just before planting, in a properly prepared seedbed on land having good drainage.

"It has been amply demonstrated, not only by hundreds of years of actual experience, but by numberless carefully conducted experiments in many countries and under widely varying conditions, that clovers and numerous other legumes supplied with tubercle (nodule) bacteria obtain from the air through the agency of these bacteria, under favorable conditions, all the nitrogen they require, and that they leave in the soil considerable quantities for succeeding crops. In Germany the amount of nitrogen added to the soil by legumes, besides that taken off in the crop, is estimated at 200 pounds per acre. In the United States the average for sixteen states is 122 pounds, equivalent to not less than 800 to 1000 pounds of nitrate of soda per acre."

Ext. Yearbook of Dept. of Agriculture for 1906.

Value of Inoculated Legumes Fully Demonstrated

STANDARD SEED INOCULATION which is a pure-bred culture and produces results equal to any inoculation on the market, we are glad to offer again this year at the reasonable price of 50c per acre. It is put up in bottles having especially constructed stoppers which furnish the bacteria with a continual supply of air, keeping them strong and active until used. It is delivered ready to us by diluting with a little water and sprinkling on the seed. Seed for ten acres can be thoroughly inoculated in ten minutes.

This inoculation is prepared for the following crops in one acre size bottles:

No. 2 for Red,
Crimson, Alsike and
Mammoth Clovers.

No. 4 for Alfalfa
or Lucerne and
Sweet Clover.

No. 6 for Vetch
or Canada Field
Peas

No. 10 for Garden
Peas, Beans and
Sweet Peas

When ordering be sure to give names of crops to be inoculated.

One Acre Size, 50c; Postpaid, 55c.

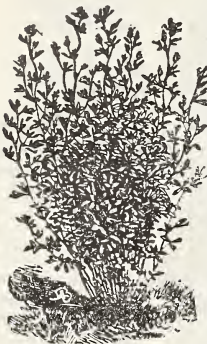
Pamphlet on request.

Clover

Great care should be exercised in purchasing grass and clover seeds. This is even more important than with other seeds, for, on account of being perennials, and the land not being cultivated, the farmer has not an opportunity to cultivate and thus destroy any weed seeds that might be sown with grasses and clovers.

Owing to the market changes we cannot quote prices. When ready to buy write us for prices, stating quantity wanted, or if you send money, we will ship seed to cover amount sent.

Alfalfa or Lucerne



ALFALFA.

Alfalfa has long been in many states and is fast becoming in this state a crop of inestimable value. Its chief merit lies in the fact that it may be cut from 2 to 4 times a season, each cutting bringing enormous yields of sweet and nutritious forage which is much relished by all kinds of stock. Care should be taken when cattle are first turned in not to allow them to overfeed, as it is liable to cause bloating. It is an excellent soiling crop and makes the best hay when properly treated, being in itself the nearest approach of any

farm product to a perfect ration. The seed should be sown broadcast at the rate of 12 to 20 pounds per acre about the middle of April or earlier, should the ground be in good condition, without a nurse or cover crop. The soil must be deep, rich and well drained, and the seed bed well prepared. The greater the effort and care taken in the latter respect the more certain the probability of a successful catch. The soil should receive a deep, early plowing, followed by frequent rolling and harrowing until the surface is in as perfect a condition for seeding as possible. The seed should never be sown on heavy, sticky clay land where water stands a short distance below the surface.

TURKESTAN—This seed is imported from Turkestan, where it has been grown for a very long time without irrigation, and with very little rain fall. Naturally it has become accustomed to these growing conditions and has acquired properties that makes it more a drought resistant than seed produced by irrigation, or seed grown under conditions where there has been more rain fall. It is, therefore, recommended to be sown on our uplands and prairies where it cannot be irrigated. **Lb., 30c; add postage.** Write for prices, stating amount wanted.

ALFALFA, American Grown—Last season we sold six carloads of alfalfa seed and five of these were non-irrigated Kansas grown. We have secured only a limited supply of this for this season, and present indications are that the supply from that state will be very limited owing to almost a failure in their seed crop. It looks now as if alfalfa was going to be very high and scarce, owing to European conditions and the seeming impossibility of importation. This applies to the Turkestan as well as to the ordinary alfalfa that comes so largely from Germany. **Lb., 30c; add postage.** Write for prices, stating amount wanted.

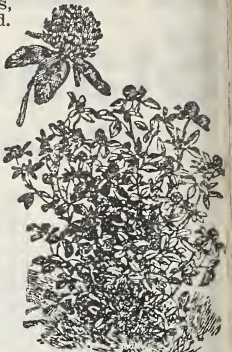
Clover

WHITE DUTCH (Trifolium Repens)—A low close growing clover with white blossoms, very fragrant. It does not attain sufficient height to be profitable for hay, but is superior for pasture, either for cattle or sheep, and unsurpassed for the production of honey. It

also makes a beautiful lawn when mixed with Blue Grass. Fancy for lawn. **Lb., 65c; add postage.** Write for prices, stating amount wanted.

MEDIUM RED (Trifolium Pratense)

—The standard clover for all purposes, either hay, pasture or for improving and enriching the soil. It is hardy and succeeds well on any good soil. It yields the heaviest crop of any clover except alfalfa, and makes superior hay—especially if mixed with timothy—either for dairy cows or for general use. **Lb., 30c; add postage.** Write for prices, stating amount wanted.



RED CLOVER.

MAMMOTH RED—Being a rank grower makes it most valuable for fertilizing purposes. Foliage, flowers and stem much darker than common Red Clover; ripens later than the latter, about the time Timothy Red Top and other grasses ripen, making thereby a much better quality of hay, when mixed with them. **Lb., 30c; add postage.** Write for prices, stating amount wanted.

BOKHARA, OR SWEET—A variety of clover which, when young, resembles in growth alfalfa, but on mature development grows from four to six feet in height. It is extremely vigorous and especially adapted to waste lands, though by many prominent farmers and stock raisers is used on good land for a crop forage. It is very vigorous growth, standing frost and drouth remarkably well, the tap roots penetrating the soil very deeply, and occasionally used as a drainage plant for wet soils. It will grow on almost any barren hillside, in bottoms, and is equally adapted to all good farming lands. Sweet Clover is one of the most valuable of all crops for bees, being the main honey plant in many sections.

Yellow (Melilotus Indica), a strong growing annual; **lb., 20c; add postage.**

White (Melilotus Alba), a strong growing perennial; **lb., 30c; add postage.**

Write for prices, stating amount wanted.

ALSIKE, or SWEDISH (Trifolium Hybrum)



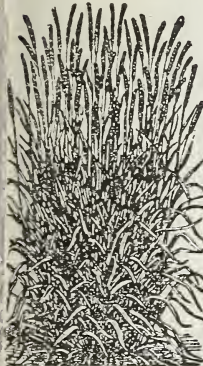
Alsike Clover

—A perfect hardy variety which is rapidly growing in popular favor. It yields large crops of excellent hay, and under favorable conditions may be cut several times during the season. It is also valuable for bees. It is well calculated to resist both drouth and excessive moisture. The hay of this variety is greatly preferred by some to that of Red Clover, for the reason that it is generally finer, brighter and not so dusty, making it better for horses. **Lb., 25c; add postage.** Write for prices, stating amount wanted.

CLOVER—Continued

CRIMSON, or SCARLET (*Trifolium Incarnatum*)—Highly recommended for pasture and fertilizing purposes. It is a thrifty annual, growing from twenty to thirty inches high, and has a beautiful crimson blossom. It germinates quickly, grows rapidly and stools abundantly. **Lb., 25c; add postage.** Write for prices, stating amount wanted.

ESPERETTE, or SAINFOIN (*Onobrychis sativa*)—A deep rooting, perennial legume, extensively cultivated on dry, calcareous soils which are too barren for clover or alfalfa. It is rather difficult to establish, as plants are easily killed when young, but when once rooted, will live from ten to twenty years. **Lb., 25c; add postage.** Write for prices, stating amount wanted.

GRASSES**TIMOTHY.**

TIMOTHY—On moist, loamy or clay soils it produces a larger hay crop than any other grass. It is not so well suited for light, sandy soils. Though preferring a moist, temperate climate, it withstands extreme heat and cold. Its hay is very nourishing and can be preserved for a long time. It should be cut when flowering, as, if left later, the hay becomes hard and coarse. It is often sown along with Red Clover, and the nutritive value of the hay is greatly increased by the mixture. Height, 2 to 3 feet. **Lb., 15c; add postage.** Write for prices, stating amount wanted.

BROMUS INERMIS (Awnless Brome Grass)—Drouth defying, frost resisting. It adapts itself to almost every condition of soil and climate and to any use to which grass may be put, equalling in quality and rivaling in yield almost any other grass. The roots push through the soil and form fresh plants on every side. It starts from two to three weeks earlier in the spring than native prairie grass and it keeps green in the autumn longer than any of the useful grasses grown in the West. No amount of cold seems to be able to kill it. It bears up well under hot summer suns. It is an abundant producer of leaves and is much relished as pasture and hay. **Lb., 25c; add postage.** Write for prices, stating quantity wanted.

ITALIAN RYE—(*Lolium Italicum*)—A quick-growing grass, attaining a height of 2½ to 4 feet. Thrives best on soils that are slightly moist, and will even stand considerable overflow. Grows easily and bears an abundance of foliage that makes the best and sweetest hay imaginable. **Lb., 20c; add postage.** Write for prices, stating quantity wanted.

RED TOP (*Agrostis Vulgaris*)—A valuable grass for moist, rich soils where it thrives vey luxuriantly. It is a good variety to sow with Timothy and Clover for meadow or pasture and is more permanent than either of the other two. It should be fed close, as, if it is allowed to grow up to seed, the cattle dislike it. On good soil

**RED TOP GRASS.**

it grows about two feet high; on poor gravelly land about half that height. It has been grown successfully even on alkali land where other grasses failed. Red Top is commonly known as Herd's Grass and should be more extensively grown, especially in combination with other grasses. **Hulled seed, lb., 30c; add postage.** Write for prices, stating amount wanted.

TALL MEADOW OATS (*Avena Elatio*)—A hardy perennial much used in the south and west. Its roots penetrate deep, and it thrives on any good soil. It yields a heavy crop and is valuable for both meadow and pasture. **Lb., 30c; add postage.** Write for prices, stating amount wanted.

ENGLISH RYE (*Lolium Percune*)—This is a valuable pasture grass which will bear close cropping. Produces an abundance of foliage, which remains bright and green during the season. The hay is relished by all kinds of stock. It will grow well on almost any land but does better in cool, moist locations. **Lb., 20c; add postage.** Write for prices, stating quantity wanted.

ORCHARD—It stands the drouth, grows well in the shade, does well in wet or poor ground. This grass furnishes excellent pasture three weeks before any other, and after close grazing ten days' rest is sufficient for another growth. Cows fed on this will produce more and richer milk than on blue grass. It makes a very heavy sod and when well set remains for many years. It is especially adapted for winter grazing, as it remains green all season. **Lb., 25c; add postage.** Write for prices, stating quantity wanted.

**ORCHARD GRASS.**

SUDAN GRASS was introduced into the United States in 1909 from Sudan under the name of Garawi. One-half pound of seed was received and the results were so very promising that plans were immediately made for testing it out thoroughly in all parts of the United States. As a result of these tests the Department of Agriculture reports that Sudan Grass will be of the greatest value in the states that are deficient in rainfall. These dry regions have no other satisfactory hay crop and Sudan Grass will be of immense value there.

Sudan Grass is strictly an annual and dies each year, reaching a height of from seven to nine feet. The stems are small and rarely thicker than a lead pencil. The plant stools wonderfully and produces under favorable conditions as many as 100 stalks from a single root.

All stock relish the hay and thrive on it. Yields of from two to four tons per acre are common and under irrigation they run as high as eight to ten tons to the acre.

SEEDING—Sudan Grass should not be planted until the soil has become warm in the spring. Planting in cold soil only delays germination and dwarfs the early growth. It can be sown any time during the summer as a catch crop so long as 70 to 80 days intervene before the date of the first expected frost. Sudan Grass can be sown in rows 18 to 42 inches apart and cultivated like corn, or it can be drilled in with a grain drill or sown broadcast by hand. In the

GRASSES—Continued

semi-arid sections it is much more profitable to seed it in rows and cultivate. The rows should be as close together as the tools available for cultivation will permit. Seeded in rows 36 to 42 inches apart, 2 to 3 pounds per acre of good seed are sufficient. In rows 18 to 24 inches apart 4 to 6 pounds, and drilled or broadcast 16 to 24 pounds per acre are required.

HARVESTING—When cut for hay it is best to cut just after full bloom, so that it will have as much time as possible for a second growth. After cutting it renews its growth promptly when moisture conditions are favorable, and in about 40 to 50 days another cutting is ready. The grass stools abundantly after first cutting.

It is interesting to note that while Sudan Grass is very drouth resisting and makes good yields in dry sections, it also does exceedingly well under irrigation and under the latter conditions makes enormous yields of hay.

Summing it all up, Sudan Grass is a hay crop which seems to be especially adapted to the drier regions of the western states. There is always a big demand for hay and it is hard to estimate the value of a grass that will produce with certainty a good crop of hay in our western states.

Every farmer in the west should plant at least an acre or two of Sudan Grass. It is very important, however, that the seed should come from a reliable grower, as there is always danger of having the seed mixed with Johnson Grass.

Quite a number of our customers sowed a pound or two of this grass last season, and every report that we received was very favorable, and the growers were enthusiastic over the results obtained.

Price: **Lb., 25c; add postage.** Write for price, stating quantity wanted.

KENTUCKY BLUE—

This makes the best, sweetest and most nutritious pasturage for all kinds of stock. This grass is the first to start up in the spring and remains green until snow flies in the fall. It is very hardy and is uninjured by cold or dry weather, hot sun or tramping of hoofs. The roots are so thick and stout as to form a tough sod. Blue grass requires about two years to get well started and for that reason it is often sown in mixture with other grasses. It will do well on almost any land. Sometimes called "June Grass." **Lb., 25c; add postage.** Extra fancy 27-lb. seed: **Lb., 35c; add postage.** Write for prices, stating quantity wanted.



**KENTUCKY
BLUE GRASS.**

MEADOW FESCUE (*Festuca Fraternis*)—A variety growing three to four feet high. Roots, deep, and resists drouth better than most grasses. It succeeds on any ordinary soil; yields a heavy crop of superior hay; one of the best grasses for pasturage. Valueable to mix with other kinds. **Lb., 25c; add postage.** Write for prices, stating quantity wanted.

CANADIAN BLUE (*Pea Compressa*)—A hardy variety growing on poorest and driest soils. Short (6 to 8 inches), hardy and wiry, but high in nutritive value. Decidedly blue in color. Stems flattened. Invaluable for use on steep places or exposed situations. **Lb., 25c; add postage.** Write for prices, stating quantity wanted.

Lawn Grass

A beautiful lawn adds greatly to the appearance of a home. In the making of a lawn two things are very important, namely: preparation of the seed bed, and quality of the seed sown.

The most important thing to consider in selecting seed for lawn grass is to obtain a proper mixture of several varieties, for two reasons: First, each variety is at its best during a certain part of the season. By properly choosing early, medium and late grasses, a smooth, even, green lawn is assured from early spring to late autumn. Second, a given area can support only so many grass plants of one kind, for they all absorb the same sort of food, but if several varieties are sown, the same area will support many more plants, as different sorts live on various elements in the soil. With these facts in mind our Clover Leaf mixture has been scientifically combined. Our experience of many years has given us an intimate knowledge of grasses, their habits and requirements. Strangers visiting Spokane frequently comment upon the beauty of our public parks and lawns. Our Clover Leaf mixture is used very extensively on both of these, in fact there is more of it used than all other mixtures combined.

In order to keep a lawn continually beautiful, it should receive frequent applications of fertilizers. Our Clover Leaf Fertilizer is specially adapted and prepared for this purpose. It will produce satisfactory results. By using Clover Leaf Fertilizer you will not be sowing weed seeds on your lawn, as you would do if you used barn yard manure.

CLOVER LEAF LAWN GRASS—Lb., 40c; add postage. Write for prices, stating quantity wanted.

Millets

The Millets are a valuable crop for the farmer who has lost his seeding, or for some other reason expects to be short of hay, for in 8 or 10 weeks from sowing it is ready to cut for hay.

Hungarian and Siberian Millets are the earlier varieties. Millet can be sown as early as the middle of May, or as late as July 10th, although when sown July 10th, the crop comes so late in September that it is hard to cure on account of the cool weather and shorter days.

Write for prices on Millets, stating quantity wanted. **Lb., 10c; add postage.**

GERMAN—This grows very rank and is one of the best varieties for hay or fodder. On good, rich soil it will make a growth of 4 or 5 feet high, and although the hay may seem coarse, yet it is so tender that if cut at the right stage, which is when in full bloom, even the hogs will eat the cured hay quite greedily.

MANITOBA OR HOG—Very rich and thus especially valuable as a hog food. A very much prized peculiarity of this millet is that the seed ripens while the stem is yet green; thus, if cut promptly can be threshed for the seed, while the hay after being threshed will make excellent fodder.

NEW SIBERIAN OR RUSSIAN—Is claimed to be the most wonderfully productive and satisfactory forage plant, possessing in a superior degree all the essential merits of any of the older sorts. The claims made by its introducers are that it is from two to three weeks earlier than the German Millet, is a much heavier cropper, that the hay is much finer, stalks more elastic and grows much taller, that it is rust proof, and being of stooling habit, requires much less seed per acre.

HUNGARIAN—Is of fine growth, and makes an excellent hay. It has numerous succulent leaves, which furnish an abundance of green fodder, relished by all kinds of stock.

JAPANESE—Is of recent introduction and great claims are made for it as to productiveness and value as a forage plant. Its introducers say that it is a marvelous grower and luxuriant stooler. Recommended highly for feeding dairy cattle, young stock and sheep.

MILLETS—Continued

being very rich in nutritious elements. Grows from four to seven feet tall, but is not harsh and woody, as other grasses are. In some sections of the country it is known as Barnyard Millet, while in other parts of the country it has been erroneously introduced under the name of Billion Dollar Grass by some seed houses. **All Millets, Lb., 10c; add postage.**

Write for prices on all Millets, stating quantity wanted.

MISCELLANEOUS FIELD SEEDS

Write for prices on all varieties of field seeds, stating quantity wanted.

Rape

DWARF ESSEX—Has been usually grown, until recent years, to furnish pasture for sheep and lambs, but is now being found equally good in providing pasture for all kinds of stock. Perfectly hardy and of remarkable fattening properties. Easily grown. Pigs, sheep and cattle are all extremely fond of it. A very rank grower and bears heavy manuring and high cultivating. Sow at intervals of several weeks and secure a supply of good feed. Sow in June. Rape should be fed in August, though if a first crop be cut about four inches from the ground an aftergrowth would be useful later. If soil is rich and clean sow broadcast, otherwise in drills and cultivate same as corn. Can be sown on wheat stubble, furnishing excellent pasture late in the fall. **Lb., 15c; add postage.**

THOUSAND HEADED KALE—The great demand for this wonderful forage plant proves it to be the most valuable green feed for Pacific Coast dairy and stockmen; endorsed by Agricultural Colleges and Government stations. **Postpaid, oz., 10c; ¼ lb., 20c; ½ lb., 30c; lb., 60c.**

SUNFLOWER, MAMMOTH RUSSIAN—The largest and most productive variety. Heads often 12 to 20 inches across. Every farmer should plant a few rows at least. It makes one of the very best of foods for poultry; a great egg producer. **Lb., 15c; add postage.**

Buckwheat

JAPANESE—This variety excels all others; yield much heavier; ripens one week to ten

days earlier; stands up better and makes better flour. Excellent for bee pasture. **Lb., 15c; add postage.**

SILVER HULL—A very good and popular variety. Grain is of light gray color; has a thin husk; matures early and yields heavy. A good milling variety. **Lb., 15c; add postage.**

Sugar Cane

Sugar Cane is supposed to be grown to advantage any place where you can produce a good crop of corn. In sections where it can be grown profitably it has several advantages over fodder corn, as it is said to produce more feed and to be more drouth resistant. It is highly recommended for feed for cattle, sheep and pigs. From our knowledge of this article and our knowledge of the Inland Empire we would recommend the farmers to give this a thorough trial, but do not think it would be wise to go into it extensively until you have demonstrated that it can be grown profitably in your particular location.

EARLY AMBER—This is the earliest, richest and altogether the best sort for northern latitudes. As a fodder plant we believe this excels all other varieties, as it is sweeter, contains more nutriment and is more relished by stock. **Lb., 15c; add postage.**

Vetches

SPRING—A pealike plant grown extensively in England and to a considerable extent in Canada for stock feeding, but not as much used in the United States as it should be. **Lb., 10c; add postage.**

WINTER—SAND OR Hairy (Vicia Villosa)—This is a very valuable forage plant—and becoming more popular every year. It belongs to the pea family, but the vines are much longer and the foliage more abundant—it improves the soil, being a great nitrogen gatherer. It is

advisable to sow oats, barley or rye, etc., with Vetch, which serves as a support for the plants. It succeeds on almost any soil and should not winter kill. A sowing in August or September covers the ground before winter and prevents washing during the winter and early spring. Can also be sown in April and will be ready to cut by the middle of July, the second growth affording excellent hog pasture during the summer. The yield of forage varies from ten to fifteen tons per acre, equal to three or four tons when cured as dry hay. **Lb., 25c; add postage.**

**Feterita**

A wonderful new grain which has attracted considerable favorable attention in Kansas, Missouri and Oklahoma. It belongs to the Sorghum family. It was introduced from Africa by the United States Department of Agriculture. The advantages claimed for Feterita are its drouth resisting qualities, its heavy yield, its earliness, its stooing propensities and its freedom from insect pests. Fe-

FETERITA—Continued

terita has successfully withstood dry weather in Kansas and other states. It branches very freely from the roots, making from three to eighteen heads from a single stool. It is from two to three weeks earlier than Kaffir Corn. See remarks under Sugar Cane relative to a thorough trial. **Lb., 15c; add postage.**

MILO MAIZE—This is one of sorghums similar to Kaffir Corn. Grows erect, with thick, close-jointed stalk. Height, 4 to 7 feet. Heads are very large, giving a heavy grain yield; is drouth resistant, and succeeds on alkali soil. Plant late when ground is warm. See remarks under Sugar Cane relative to a thorough trial. **Lb., 15c; add postage.**

EGYPTIAN CORN (Also called Jerusalem Corn or Dhoura)—One of the non-saccharine sorghums, requiring the same growing conditions. Seeds well in dry sections. Producing small heads on side shoots up to eight on a stalk, the seed is large than Kaffir corn; yield is heavy. See our notes on Sugar Cane. **Lb., 15c; add postage.**

KAFFIR CORN—Grows 4 to 5 feet high. The stem or stalk bears numerous wide leaves. The stalks are brittle and juicy, not hardening like other varieties of sorghum. It makes excellent fodder, either green or dry, which is highly relished by cattle and all kinds of stock. See our notes on Sugar Cane. **Lb., 10c; add postage.**

BROOM CORN, IMPROVED EVERGREEN—This is the most popular variety of broom corn to grow for the market, the brush being firm and of good length, and retaining the light green coloring when properly cured. **Lb., 15c; add postage.**

Peas, Field

Field Peas are a very profitable crop and grown very extensively. They can be grown alone or with oats. When planted with grain and cut green they make a large amount of very rich feed; also very valuable for

enriching the soil if plowed under. The dry peas make excellent hog feed and are quite fattening.

WHITE CANADIAN—A leading kind; seed almost white; a heavy cropper. **Lb., 10c; add postage.**

GREEN FIELD—Very like the above, except in color. This variety is largely sold dried for soup peas. **Lb., 10c; add postage.**

BANGALIA—This variety has been highly recommended by our State College at Pullman on account of its great yield. It is earlier than the other varieties of field peas, less liable to crack in threshing, has finer straw and makes better fodder, and the peas are green in color. **Lb., 10c; add postage.**

Write for price on all field peas, stating variety and amount wanted.

LENTILS—Succeed best in dry, sandy soil. A leguminous annual, the seeds of which are valuable for pigeons and are used largely for soups. The leafy stalks make good forage. **Lb., 15c; add postage.**

COW—Cow Peas are more tender than Canada or Field Peas and should not be sown until Corn planting time. Cow Peas, being of very rapid growth during the warm weather, can be sown as late as the middle of July with reasonable assurance of a profitable crop, either for harvesting or plowing under. Are really small beans of vigorous vining habit and heavy foliage of great nutritious value, yielding five to nine tons of green feed per acre.

NEW ERA COW PEAS—A new, extra early variety, the quickest growing of any of the Cow Peas, maturing in about 60 days; specially adapted for planting north. **Lb., 15c; add postage.**

Flax Seed

RECLEANED FOR PLANTING—**Lb., 15c; add postage.**

Write us for prices on all field seeds, stating quantity wanted.

GRAIN

The great importance of sowing thoroughly re-cleaned grain is getting to be more and more recognized by the progressive farmer. Besides being thoroughly re-cleaned the seed should be selected with the greatest care, as there are sometimes foreign seeds in the different grains so nearly the size of the grain itself it becomes almost impossible to make a separation. In selecting grain for seed purposes it should be selected because that each grain has been well filled and thoroughly matured, because it has all ripened at the same time, and because of its freeness from all seeds that can not be separated from the grain. In selecting our grain for seed, all of the foregoing points are taken into consideration, then it is given a thorough re-cleaning, and as a result we are able to put on the market a strictly number one article. Kindly write us, asking for prices and state the amount wanted. Stating the amount is very important, as we do not know whether an enquirer wants one hundred pounds or a ton. In case amount is not stated we always quote price on a small amount. You are therefore depriving yourself of our best prices should you want a quantity.

Write for prices on all varieties of grain, stating quantity wanted.

Wheat

There is wheat and wheat, and it is penny wise and pound foolish to sow inferior quality. This inferior quality may be because the grains have not been fully developed or on account of impurity, or on account of improper cleaning. We guard against all three, hence our quality is right.

Winter—Jones Fife, Martin Amber, Gold Coin, Hybrid.

Spring—Blue Stem, White Australian, Marquis, Early Bart.

Early Marquis possesses three remarkable qualities: **Remarkably early, exceedingly productive, unexcelled in milling qualities.**

Earliness—It is from one week to ten days earlier than Red Fife. This is important as this week or ten days may mean the difference between a full crop and a failure or a partial failure.

Productiveness—Marquis Wheat has out-yielded all other Spring Wheat, with the exception of Early Bart, grown under the same conditions of soil, cultivation and climate. The increased yield varies from 5 to 10 bushels per acre.

Quality—Marquis Wheat has by numerous milling tests shown a higher percentage of gluten, a better color, greater absorption and heavier weight per bushel of grain.

Appearance—Marquis Wheat is similar in appearance to Red Fife, but the heads, as a rule, are heavier and the straw is shorter, making it less likely to lodge. The kernel is flinty, a little darker in color than Red Fife, being dark red, and more plump than that variety. It is beardless, having smooth, yellow chaff.

The universal verdict of those who tried it last spring was that it outyielded all other varieties.

EARLY BART—This variety has only been introduced this last one or two years into the Big Bend section, and results obtained have been very satisfactory. It is a white variety, very large grains—larger than the Bluestem—and a very handsome wheat in appearance. Its milling qualities are such that the millers pay the top price for it. It is a very heavy yielder, surpassing all of the old standard varieties, and some claim that it will outyield the famous Marcus wheat. It is bearded and much less liable to shatter than any other variety.

Oats

We handle the Bonanza, Swedish Select, Silver Mine, Lincoln and other standard varieties. These varieties have all proven to be well suited to the Inland Empire, and are the varieties mostly grown and recommended. Our quality will be as good as careful selection and reselecting can make them. Write us for prices on wheat and oats, stating amount wanted.

Barley

WHITE HULLESS—A grand barley for stock feeding. Grain plump, heavy, and when threshed is hullless like wheat. A heavy cropper. When grown and cut for hay it produces a magnificent fodder, which is very rich and almost equal to a grain feed. Much relished by horses and stock of all kinds. An excellent hog feed.

Its Valuable Properties

It's hullless; it's beardless; it's very early. It weighs over 60 pounds to the measured bushel. It yields well on poor land. It yields enormously on good land.

BEARDLESS—Two strong features distinguish the Beardless Barley above all other barleys; first, its great yielding qualities; second, its freedom from the troublesome beard. It is on this account not only much more agreeable to handle in threshing than other barleys, but it is much safer and better to feed to live-stock. As a fattening agent for swine Beardless Barley is particularly valuable.

WINTER—This is a bearded variety that was introduced in this vicinity two or three years ago. **100 lbs., \$2.50.**

Write for prices on barley, stating amount wanted.

Rye

Rye is a valuable and very hardy crop, producing green fodder either in the early spring or late fall. It matures before other crops come in and can be sown on soil too poor for other cereals.

SPRING RYE—Spring Rye is an excellent catch crop where winter grain has been killed out, or for sowing where a full crop has not been planted. If desired it can be turned under and made to answer a good purpose in adding to the fertility of the soil.

WINTER RYE—The value of Winter Rye is becoming more apparent every year. It is much harder than wheat and can be grown on a greater variety of soils, even on soil that would not produce a fair crop of wheat. It will thrive even in dry seasons and on light sandy loam. It is grown not only for grain, but for fodder and soiling purposes. When sown in the autumn it starts up very early in the spring and is often plowed under, as it adds greatly to the fertility of the soil. Rye does not exhaust the soil as do other grains and can be cultivated longer on the same land than any other crop on the farm.

Owing to the very unsettled condition of the grain market and the utter impossibility of us being able to quote prices that would be correct, we ask that you write for price on all grain and field seeds, stating amount wanted, as even where we have made quotations these quotations may not be correct. On all open orders we will send full value for money received.

Kill the Smut in Your Grain

If there is smut in your grain destroy it by using bluestone or formaldehyde. This trouble is becoming very prevalent, and must be destroyed if wheat is to keep up its high grade of milling qualities.

Fertilizers

Most soils in the Inland Empire are yet fairly new. Their native or virgin fertility is not yet exhausted. There are, however,

many different types of soils, some of which do not naturally contain very large supplies of the different elements of plant food needed by crops. Such soils are likely soon to "run out" and need application of fertilizers carrying the particular elements in which they are deficient. These can best be restored to or built up in fertility by the use of fertilizers to stimulate increased growth until the soils can be properly brought back into good condition.

COMPLETE FERTILIZERS—Complete Fertilizers are those containing correct proportions of all of the essential plant foods, viz.: Nitrogen, Phosphoric Acid and Potash. Different crops require different proportions of these plant foods.

Chemical fertilizers are usually rich in one or two of the ingredients necessary to produce abundant crops, but at the same time are deficient in others; hence as a general rule best results cannot be obtained by using straight chemical fertilizers, such as Nitrate of Soda and the different Potashes. To overcome this difficulty and to provide a reliable

complete fertilizer we have spent both time and money in the preparation of our Clover Leaf fertilizer. It has been subjected to analysis and the same is printed on each bag. Actual results obtained from the use of Clover Leaf Fertilizer proves conclusively that it is the best fertilizer that can be used by the Farmer, Gardener or Orchardist. Best because it is economical to use and because it produces results. 600 to 800 lbs. to the acre would be fair dressing, and would be equal in fertilizing value to about eight tons of ordinary stable manure. It is free from the millions of weed seeds invariably found in stable manure.

Clover Leaf Fertilizer may be sown broadcast on the plowed ground, and harrowed in, before planting; or it may be drilled in close to the rows of seeds or plants after seeding or during the early growing season. **6 lbs., 25c; 25 lbs., \$1.00; 50 lbs., \$1.50; 100 lbs., \$2.50; 500 lbs., \$12.00; ½ ton, \$22.50; ton, \$42.50.**

SUPER-PHOSPHATE—This is what is known as Acid Phosphate, being Phosphate rock treated with acid to make the Phosphate Acid available. The Phosphoric Acid in this is more quickly available than it is in bone meal and for that reason is sometimes more useful. It contains 29 per cent Phosphoric Acid, and is generally used at the rate of 500 lbs. to 1,000 lbs. per acre.

NITRATE OF SODA—Contains 13 per cent Nitrate, in quickly available form. It is used for forcing crops like lettuce, celery, etc., as it makes a large growth of leaves and tops.

Apply the Nitrate of Soda by broadcasting it evenly over the entire surface of the vegetable field you are fertilizing, at the rate of 200 pounds per acre, before seeding, or planting, or transplanting.

KAINIT—It contains 12.4 actual Potash and contains Potash both in the forms of Sulphate and Muriate. It contains Salts of Magnesia



FERTILIZERS—Continued

and also common Salt. Kainit can be used upon the crops for which Muriate of Potash is recommended.

SULFATE OF POTASH—Contains 50 per cent Available Potash. This is similar to Muriate of Potash but is free from chlorides, and can be used to advantage in some instances where the muriate can not be used. Use about one sack to the acre.

MURIATE OF POTASH—Contains a larger percentage of Potash than other commercial forms, and is, therefore cheaper where it can be safely used, but owing to the Chloride it contains, is not best for some crops unless applied a few months previous to planting, which allows the Chloride to leach out while all of the Potash is retained until taken up by the plants.

LAND PLASTER OR GYPSUM—Made from pure Gypsum, free from clay or other foreign matter. This is especially valuable for clover and grass crops. 100 lbs., 75c; 500 lbs., \$3.50; ½ ton, \$6.50; ton, \$12.00.

ANIMAL FERTILIZERS—Most of them contain both Nitrogen and Phosphoric Acid, but do not contain Potash, so that to make them complete it is necessary to add the correct proportion of chemical fertilizers. All the different ingredients are found in our Clover Leaf Fertilizer.

BONE MEAL—This contains 3 per cent Nitrogen and 22 per cent Phosphoric Acid. It is slower in action, but will not dissolve and waste in the soil, as the plant food contained in the Bone Meal is released only as fast as the roots of the plants take it up. 100 lbs., \$2.25; 500 lbs., \$10.65; ½ ton, \$20.00; ton, \$38.00.

TANKAGE—This is a slaughter-house product and has very little odor. The analysis

shows 5 to 7 per cent Nitrogen and 12 to 15 per cent Phosphoric Acid. 100 lbs., \$1.50; 500 lbs., \$7.25; ½ ton, \$14.00; ton, \$27.50.

BLOOD MEAL—A quick-acting fertilizer analyzing very high in effective Nitrogen. This also carries some Phosphorous; is a strong fertilizer, a little going a long way. 100 lbs., \$2.75; 500 lbs., \$13.25; ½ ton, \$25.50; ton, \$50.00.

SHEEP MANURE—This is the best and strongest in fertilizing and enriching elements, as it contains Nitrogen, Phosphoric Acid, Ammonia and Potash in liberal proportions. Produces immediate and lasting effect. Promotes steady and rapid growth.

FOR LAWNS—Pulverized Sheep Manure is the best possible fertilizer for the lawn. It should be applied by sprinkling lightly over the grass, much as one would sow grass seed. It requires no raking in. The color is not conspicuous and there is no objectionable odor. 100 lbs., \$1.25; 500 lbs., \$5.75; ½ ton, \$11.00; ton, \$20.00.

As it is impossible for us to quote with any degree of certainty on Nitrate of Soda, Phosphates and Potash, we are not making any quotations, therefore ask that you write for prices, stating amount wanted.

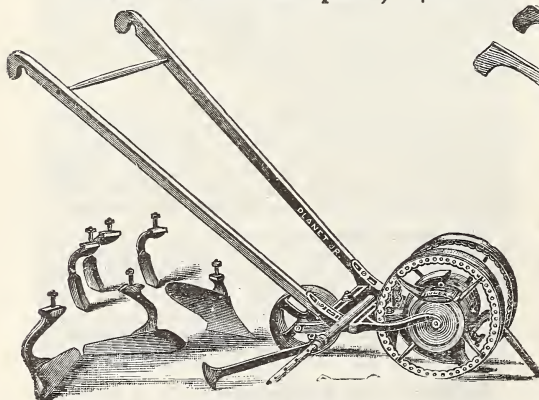
This also applies to the fertilizers we have quoted, as the scarcity of the imported chemical fertilizers will effect the price of all. Sold only at price prevailing at time of shipment.

We have the following books treating on the different chemical fertilizers, mode and manner of using, crops, etc., which will be sent free of charge. Make your selection and send 5 cents to cover postage: Fall Fertilizers, Farmers' Guide, Farmers' Note Book, Plant Food, Potash Pays, Potash in Agriculture, Principles of Profitable Farming, Strawberry Culture, Sugar Beet, Truck Farming.

Farm and Garden Tools

Space will not permit our showing and describing all of the "Planet Jr." Tools, but we will send a full illustrated catalogue free for the asking to any one desiring it, and we can supply promptly anything ordered. "Planet Jr." tools are standard machines, the best on the market. In sending your orders to us you can rely on getting bottom prices.

No. 1 Planet Jr. Combined Drill Seeder, Wheel Hoe, Cultivator and Plow. Price Complete, \$10.50.



This tool is known and used the world over. The hopper holds three pints, and sows in an even, regular stream, whether there is much or little seed in it. The machine is extremely simple, has no agitators, belts or gearing, and will not injure the seed. From a drill it is changed to its other uses by removing two bolts, when hoes, cultivator teeth or plows can be quickly attached. It is a practical every-day time and labor saver, a grand remedy for the backache, and the best low-priced combined machine on the market.

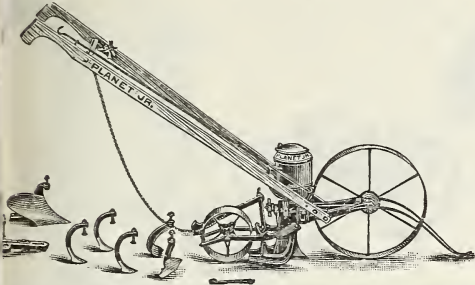
Planet, Jr., No. 4, Combined Seed Drill, Single Wheel Hoe, Cultivator and Plow. Price Complete, \$12.00. Seeder Only, \$10.00.



This is the most popular combined tool made. It combines in a single implement a first-class, hill-dropping seeder, a single wheel hoe or weeder, a cultivator and a plow. The hopper holds two quarts of seed, which can be sown in continuous rows, or dropped in hills, at 4, 6, 8, 12 or 24 inches apart.

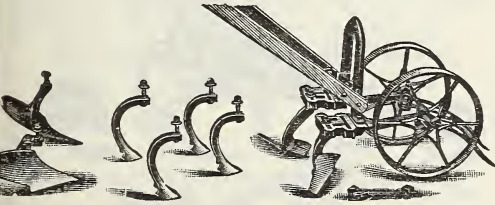
The drill is detached and the tool frame substituted by removing but one bolt. It then becomes a single wheel hoe. It is useful almost every day of the season, at every stage of the garden work. With this one implement the small farmer can do practically all the work in his small crops.

No. 6, Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow. Price, \$14.50.



The steel carrying wheel is 16½ inches high, with forged steel spokes, making an easy running tool. Handles adjustable. The feed and cut-off are very accurate. The opening plow is of a new shape, leaving the seed in a narrower row than any plow heretofore made. The roller is large and wide, leaving the seed in excellent condition for germination. This drill sows in drills, drops in hills 4, 6, 8, 12 or 24 inches apart, covers, rolls down and marks the next row, all in one passage. As a wheel hoe the frame is similar to our No. 17 Single Wheel Hoe and equipped with the same tools.

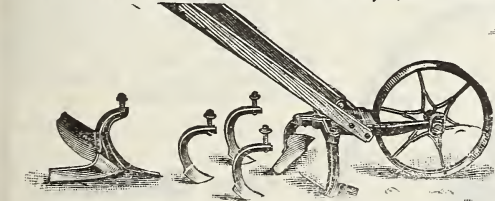
Planet, Jr., No. 12, Double Wheel Hoe, Cultivator and Plow. Price, \$8.00.



This No. 12 runs either astride or between the rows; kills all the weeds and leaves the earth in fine shape. Then, too, it's easy to work.

The No. 12 has a pair of 6-inch hoes, a pair of plows for opening or covering, and a set of four all-steel cultivator teeth. The tools shown are what gardeners use most and others can be added as wanted.

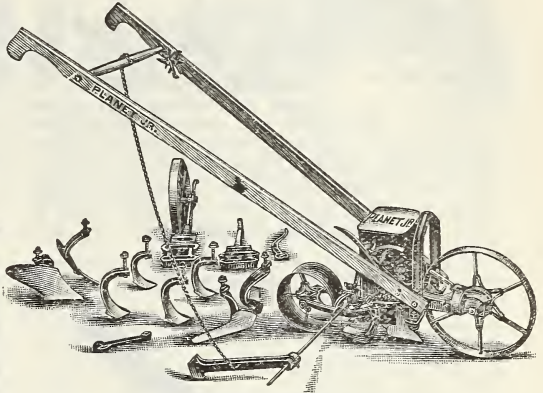
Planet, Jr., No. 17, Single Wheel Hoe, Cultivator and Plow. Price, \$5.75.



It is suited to all kinds of garden cultivation and all garden crops. You can do more and better hoeing with it in one day than you can do in three days with a hand hoe. The No. 17 has a pair of 6-inch hoes, a plow and a set of cultivator teeth, an outfit sufficient for most garden work.

Clover Leaf Fertilizer—A money maker because it Produces Results

Planet, Jr., No. 25, Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow. Price, \$14.50.

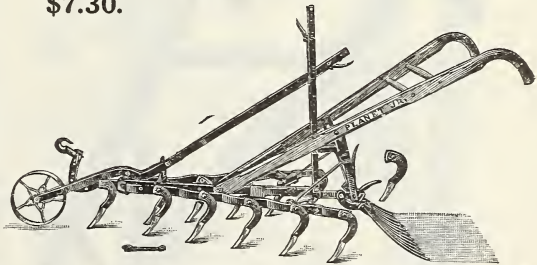


This combined machine is intended for gardeners who have a large enough acreage in crops for a double wheel hoe to be used to good advantage, and prefer not to buy separate machines.

As a drill it is almost identical with the Planet Jr., No. 4, Drill, and is thoroughly substantial and accurate in sowing all kinds of garden seeds in hills or drills.

As a wheel hoe it is identical with the Planet Jr., No. 12 Double Wheel Hoe, the very best machine on the market. The change from drill to wheel hoe takes but a moment and the whole combination is one we can heartily recommend and guarantee satisfactory.

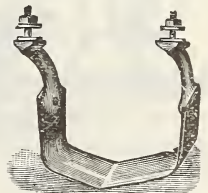
Planet, Jr., Twelve-Tooth Harrow Cultivator and Pulverizer. Price, Complete, \$10.75, without Pulverizer, \$8.85; without Wheel or Pulverizer, \$7.30.



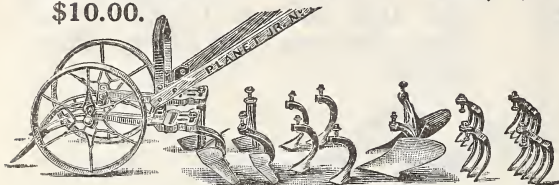
With the 12-tooth harrow here shown you go as deep or shallow as you like, come up close to row without injuring plants, cut out all the weeds, stir the soil and mellow and fine it as with a garden rake. You widen and narrow as you please between 12 and 32 inches. It's a special favorite with strawberry growers, market gardeners and truckers.

Onion Set Harvester, Price, \$1.25. Weight 1½ Lbs.

A useful attachment for our combined drills and all our wheel hoes. Eight-inch size for onions and onion sets. It leaves the crop in the best condition for easy handling.

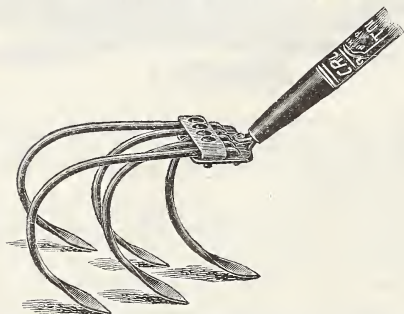


No. 11, Double Wheel Hoe. Price, \$10.00. No. 21, Combined Hill and Drill Seeder and Fertilizer. Price, \$22.00.

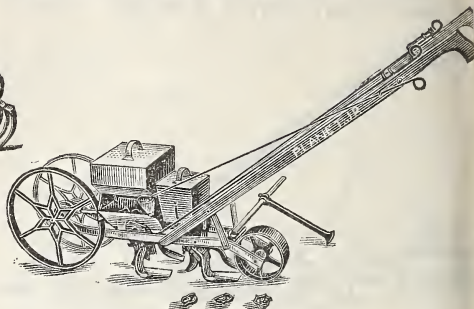


This is the greatest cultivating tool in the world for the onion and sugar beet grower, and also for every grower of garden crops from drilled seed. They can do more work and do it better and easier than can possibly be done in any other way. One pair 6-inch hoes, one pair 4-inch hoes, two pairs hollow steel cultivator teeth, one pair plows, two 3-tooth rakes, two 5-tooth rakes, and two leaf lifters.

Cronk's Cultivator Hoes



Two prongs are changeable for rows of any width. Loosening nuts, releases the prong. Works between rows or center prong can be removed and rows straddled. A perfect weeder and pulverizer, giving level cultivation. Removing center prong and reversing other four makes Potato Digger. Head made entirely of steel. Light, well made, serviceable. Blue finish, 4 1/3 foot handle. Price, \$1.00.



No. 21 has been much improved and meets the demand for a drill to sow seed and fertilizers at the same time. This tool may be used to sow seed only, in either hills or drills, as desired; or to sow fertilizer only; or to sow both together. It sows all garden seeds in hills 4, 6, 8, 12 or 24 inches apart, or in drills, and also fertilizer, placing it above or below the seed as desired. The quantity is regulated by the patent feed rod and index at the top of the handle. The seed hopper holds 2 quarts; the fertilizer hopper 4 quarts.

No. 6 Horse Hoe and Cultivator.
Price, \$7.00.



We recommend to all our customers as being one of the best tools made.

"Standard" Garden Plow

The adjustment is the handiest and most perfect ever put on a tool of this kind and is adjusted up and down by loosening a thumb nut at the top of the shank, as shown in cut, and may be done without removing the plow from the ground. Wheel 24 inches in diameter, held by double pattern frame of very stiff steel. The handles are adjusted by the same thumb nut without interfering with the plow adjustment. The attachments furnished with this tool are of the best quality and shape ever offered. The new five-tooth rake cultivator is fine for all small plants and stirs the ground thoroughly, having wide shovel points. Price, \$4.00.

Our Hobbies:

**Quality
and
Service**

Master's Rapid Plant Setter

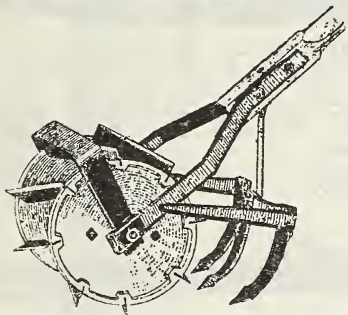
The only hand mechanical plant setter on the market. It is built on scientific principles throughout. The conical jaws are made of heavy sheet steel and the main body or water reservoir and plant tube of heavy tinned plate. The water valve is of brass with rubber packing. The valve rod and trip springs are of steel wire. The machine is well put together with rivets and solder.

Plants are set in water or liquid manure and covered at one operation. Plants may be safely set out in hot, dry weather. Sets cabbage, cauliflower, tomatoes, sweet potatoes, sugar beets, etc., much more rapidly than by hand and with much less loss of plants. The plant setter has a record of more than 998 plants to grow out of each 1,000 set.

Any man can easily learn to set from 2,000 to 10,000 plants per day.

This system of planting is recommended as proof against cut-worms. Weight, 5 lbs. Weight crated for shipment, 7½ lbs. Price, \$4.25.

The Baker Weeder and Mulcher



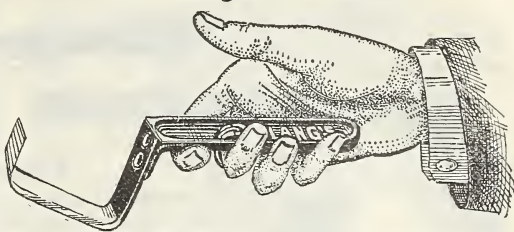
This cultivator is built on the plan of a lawn mower, runs like a lawn mower and cuts weeds like a lawn mower cuts grass. It cuts the weeds that are under the ground as well as those on top of the ground, thus doing away with two or three crops of weeds at one and the same time. The mulching and cultivating of the soil serves a twofold purpose as it breaks up the capillary and prevents the moisture from evaporating. It also keeps the surface in such a condition that it readily takes the surplus water in as it falls. Price, \$3.00.

Garden Trowel



Good steel trowel. Price, 10c, 25c, 50c; postpaid, 15c, 30c, 55c.

Lang's Weeder



It is very conveniently used, and fits the hand so comfortably that the fingers are entirely free for use wherever necessary. Price, 25c; postpaid, 30c.

CORN PLANTERS

ACME ROTARY—Pressed steel hopper. Hopper cup conveyor, depth gauge, dump, foot and cut off box. Cast frame (or basket). Disc or seed plates are adjustable by means of a thumb nut to suit various sizes of kernels. Used in one hand like a walking stick. Disc is set to correct number of kernels by loosening thumb nut, moving star until pockets are of right size, then tightening thumb nut again. Plunge planter into the ground, rock forward to trip seed, and withdraw. Double coil spring automatically rotates disc and closes jaws, thus filling same for next hill. Weight, 6 lbs. Price, \$2.00; add postage.

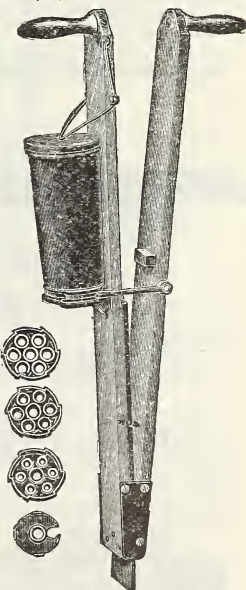
SEGMENT—The seed pocket can be sufficiently enlarged to perfectly adapt it for planting the largest field beans as well as corn. The slide is an arc of a circle having its center where the jaws are pivoted together. In other words, the pivots on which the jaws open and shut are the hub of a wheel of which the slide is a part of the rim. There is consequently no friction nor lost motion. Weight, 5 lbs. Price, \$1.25.



ACME OR TRIUMPH

—Is made of good material. Has iron seed box and iron channel; foot of polished steel, strong, durable, and gives universal satisfaction. Weight, 5 lbs. Price, \$1.00; add postage. A cheap but efficient two-hand planter.

ECLIPSE ROTARY—Decidedly the best two hand corn planter made and a very desirable implement for those who have a quantity of corn to plant. It puts the corn exactly where you want it, and at a proper depth. It is easily worked and a most satisfactory tool in every way. Weight, 9 lbs. Price, \$1.50; add postage.



Eclipse

All Orders Filled Promptly

Corn Knife

A very convenient and excellent tool. Mailing wt., 2 lbs. Price, 50c; add postage.



The old-fashioned crooked corn knife, with a wooden handle. Weight, 2 pounds. Price, 50c; add postage.

Potato Planters

EUREKA—This is the lightest tubular planter made. With this planter one man can plant several times as much ground without getting a lame back as he can plant by hand. The planter locks itself as it is lifted out of the ground, so that the next potato may be dropped in at once, and opens automatically as the top of it is moved forward in walking. Weight, 5 lbs. Price, \$1.50.



SEE THAT SHARP JAW



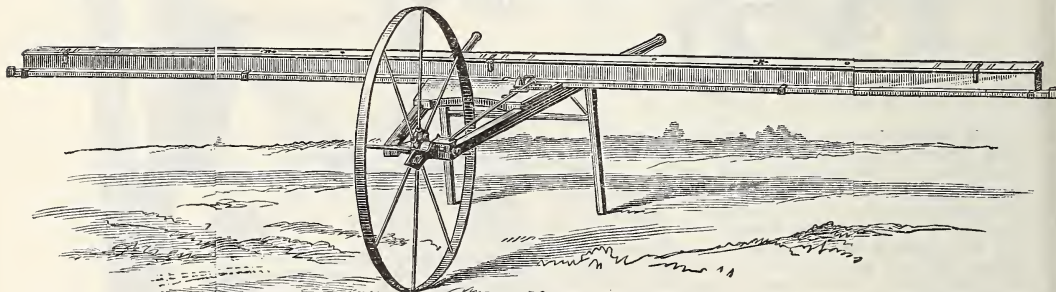
Invincible
Potato
Planter.
PATENTED.

Don't forget to add Postage

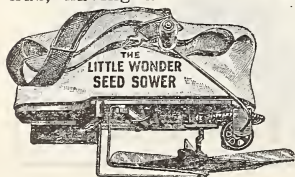
PINGREE OR ACME—Is practically the same as the Eureka without the tube down the handle. You lift the planter up and drop the potato in the lower part. It is light and a very satisfactory planter. Weight, 4 lbs. Price, \$1.00; add postage.

INVINCIBLE—A great labor saver. Two acres a day can be planted with one of these tools. The sharp jaw enters the ground as easily as a spade. The handle is adjustable. It has a double leaf spring, and is strong and durable. Weight, 5 lbs. Price, \$1.50; add postage.

GRASS SEEDERS



NATIONAL WHEELBARROW—They run easily, and sow evenly in windy weather. The quantity of seed sown is accurately governed by the wheel, which moves correspondingly slow or fast as the machine runs over the ground. This new seeder is constructed on up-to-date principles. It has a strong steel wheel, 32 inches in diameter, with an inch and a quarter by one-quarter inch steel tire, is operated by a device that engages the wheel close to the hub, having a lever and working correspondingly easy. It is instantly thrown out of gear, and the amount of seed sown is quickly governed by changing the pin in the index plate as thereon indicated. This seeder does not injure or bunch the seed, but evenly distributes it the full length of the hopper, 14-foot spread. Price, \$3.50.



LITTLE WONDER—This Sower of the Single-Board-Bottom type, is a trifle smaller than the Improved Cyclone, but it has the same shape, and is carried and operated the same. Has large distributing wheel and automatic feed shutoff. It is a well constructed Sower that will handle all varieties of farm seed that can be sown broadcast. Weight, 4 lbs. Price, \$1.50; add postage.



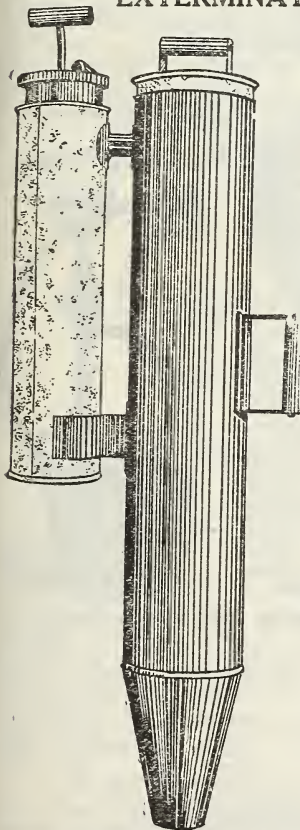
tom-board type as it insures a filled hopper always, until seed is exhausted.

Triple Gears—are all adjustable.

Automatic Feed Shut-Off—starts or stops flow of seed instantly.

The Improved "Cyclone" is guaranteed to sow perfectly all seed that can be sown broadcast, such as clover, timothy, millet, flax, wheat, oats, alfalfa, etc., etc. Weight, 5 lbs. Price, \$1.75; add postage.

THE LITTLE WONDER SQUIRREL EXTERMINATOR



It is light in weight weighing only 10 lbs., yet is strong and durable.

Its work is rapid and its effects are sure. Experiments have proven that squirrels and gophers expire almost instantly when they come in contact with the deadly smoke or gas.

It means a great saving to the farmers to be able to be quickly and cheaply rid their farms of ground pests. There is no cheaper and quicker method than by using Little Wonder—cheaper than one application of poison, as small quantities of sulphur and straw are the only ingredients necessary to charge the machine.

One important feature about the Little Wonder is the compressor or pump, which insures a good volume of smoke and with such force as to drive it to the remotest parts of the pests' holes, causing instant death. Price, \$7.00; weight, 11 lbs.; add postage.

Do Not Forget to Add Postage

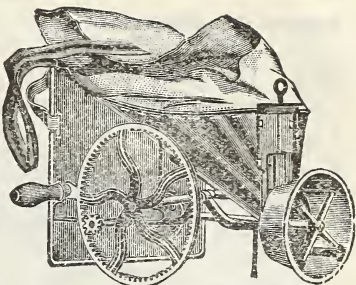
IMPROVED CYCLONE

Has a Slope Feed Board—This feature is found in no other Sower as the Improved "Cyclone" is the only Hand Seed Sower that is framed together with a slope feed board. This is a marked improvement over the single-bot-

CAHOON

The standard broadcast seeder and one of the best made. Sows all kinds of grain, Clover, Timothy, and heavy seeds. Very simple in its operation and sows 4 to 6 acres an hour at a usual walking gait.

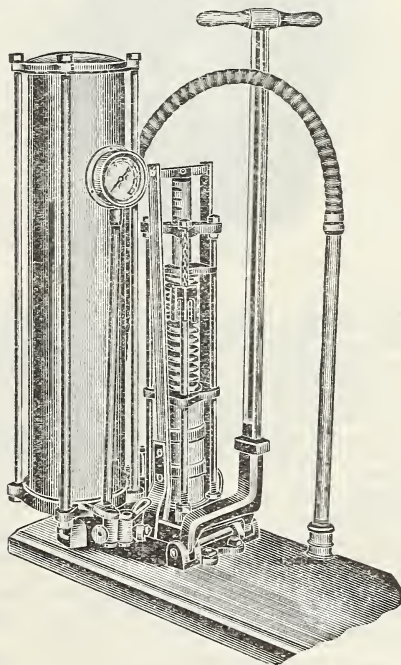
Distributes seeds uniformly in one-fifth the time required by hand. Weight 8 lbs. Price, \$3.50; add postage.



Cahoon Broadcast Seeder

Pumps

THE MAGIC SPRAY PUMP



Magic pumps represent a principle in construction, found in no other spray pumps.

This construction means maintaining the high pressure that is absolutely essential with only two-thirds of the labor necessary with any other pump.

In addition to the overwhelming superiority the Magic and other Bean Spray Pumps are the only ones which—

Have non-corrosive porcelain cylinders, 3-inch;

Have no stuffing box or outside packing;

Have 5 1-16 inch bell metal ball valves with reversible and removable seats;

No threads inside the valve;

Have a powerful spring, which is so used as to save one-third the labor;

Weight, 200 pounds.

OUTFIT 181—With gauge, double cut-off, suction hose and strainer, \$41.00.

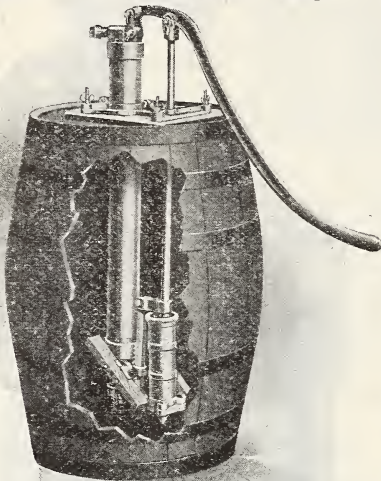
OUTFIT 182—With gauge, double cut-off,

PUMPS—Continued

suction hose and strainer, two 8 or 10-foot bamboo extensions with cut-offs and nozzles, \$45.00.

COMPLETE OUTFIT 183—With gauge, double cut-off, suction hose and strainer, two 8 or 10-foot bamboo extensions, with cut offs and nozzles, and two 25-foot lengths of Spray Hose, fitted, \$56.00.

BEAN LITTLE GIANT NO. 70 Spray and Whitewash Pump



"Little Giant" is recognized as the best and most powerful barrel sprayer on the market, giving universal satisfaction for small orchards of a few acres.

The pump has a large steel air chamber, making it easy for the operator to keep up a high pressure, and continue spraying for some time after pump has stopped.

It has no stuffing boxes, glands or outside packings, thereby insuring easy running.

Rotary agitator that is positive, insuring thorough agitation for such heavy solutions as arsenate of lead, Bordeaux, whitewash and cold water paint.

Pump with "Rapid Mixer," top plate, anchor, hose nipple and thumb bolts ready to fasten to barrel. **Price, \$15.00.**

Pump with "Rapid Mixer," top plate, anchor, hose nipple thumb bolts, one 8-foot bamboo extension with nozzle and cut-off. **Price, \$17.00.**

Pump with "Rapid Mixer," top plate, anchor, hose nipple, thumb bolts, one 8-foot bamboo extension with nozzle and cut-off, and 25 feet of hose fitted. **Price, \$20.00.**

Empty barrel, \$2.00 extra.

BEAN "PIPPIN" NO. 50

Our Bean Pippin, No. 50, is especially adapted for use on side hills and very rough ground, because the air chamber is entirely contained within the barrel, so it is almost impossible to tip over.

It also meets the demand for a low-priced, high-class sprayer for small orchards, vineyards or whitewashing jobs.

It has an anchor in the bottom of the barrel on which the point of the cylinder rests, which holds it rigidly in position. It is made to fasten in a barrel without a head, so is extremely easy to mount.

OUTFIT 270—Pump, with agitator complete, anchor, hose nipple and bolts ready to fasten to barrel. **Price, \$11.00.**

OUTFIT, 271—Pump, with agitator com-



plete, anchor, hose nipple, bolts ready to fasten to barrel. **Price, \$13.00.**

COMPLETE OUTFIT 272—Pump, with agitator complete, anchor, hose nipples, bolts ready to fasten to barrel, one 8-foot bamboo extension, with nozzle and cut-off and 25 feet of those fitted. **Price, \$16.50; empty barrel \$2.00 extra.**

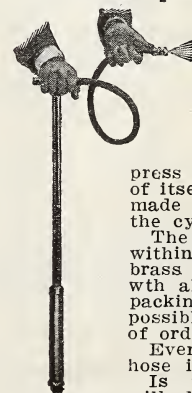
The Success Bucket Spray Pump

All Brass Working Parts, with Indestructible Bronze Valves, Malleable Iron Combination Foot-Rest.

This outfit is a most excellent one for ordinary use in gardens, vineyards and orchards; for washing windows and buggies and for the application of whitewash. The pump has a large air chamber and is double acting, throwing a continuous stream either solid or in fine spray. It is provided with Bordeaux nozzle and four feet of discharge hose. Weight, 8 lbs. **Price, \$4.00; add postage.**



A New Spray and Force Pump



We do away entirely with the objectionable foot-rest, clamps, leather suction, packing, etc., etc.

This pump requires no fastening of any kind, holds itself down and works anywhere and everywhere. All the operator need do is to press the plunger down.

It is of itself, the upward stroke being made by a brass spring forcing the cylinders apart.

The all-brass suction working within a brass cylinder with all brass valves, does away entirely with all leather, rubber, or other packing. It is practically impossible for any part to get out of order.

Everything except handle and hose is solid brass.

Is the easiest working and will do more different kinds of work than any pump ever made. Will pump

PUMPS—Continued

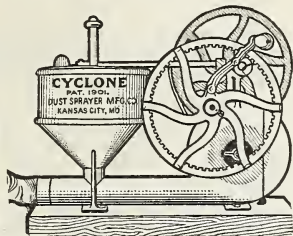
from a pail, barrel, tank, spring or creek. Without fastenings of any kind it stands firmly wherever placed.

Will throw two solid continuous streams, one flat spray and one fine round spray. Has automatic mixer to keep solution stirred, pleases everybody and will last a lifetime.

Weight 5 lbs., price \$3.50; add postage.

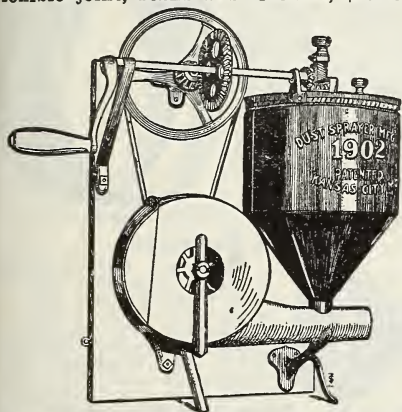
DUST SPRAYERS**CYCLONE**

This is a hand power machine. The dust box holds 1 peck of dust, the machine uses $2\frac{1}{2}$ -inch air tube and 8 feet of $2\frac{1}{2}$ -inch spouting, one flexible joint, stand and fixtures, and one book of formulas is furnished free with each machine.



CAPACITY—One horse and light wagon, and two men can spray from 25 to 40 acres per day, according to the size of the trees.

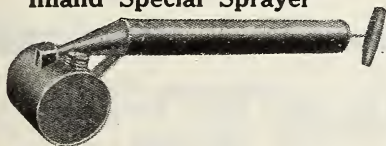
Price—Machine, 8 feet $2\frac{1}{2}$ -inch spouting, 1 flexible joint, stand and fixtures, \$27.50.



PORTABLE MACHINE 1902—This machine is carried by the operator. The machine and its entire mechanism is securely fastened to a single back piece. It is held in position by combined shoulder braces and waist band, adjusted in such a manner as to throw the weight of the machine on the haunches of the operator.

The dust box holds 1 gallon. It has the same feed attachment as the Cyclone. The dust box, air tube, and fan shell are made from galvanized iron on exactly the same design as the Cyclone. It has $1\frac{1}{2}$ -inch air duct, and 6 feet of $1\frac{1}{2}$ -inch spouting, one flexible joint, one pair of combined shoulder braces, and one book of formulas is furnished free with each machine.

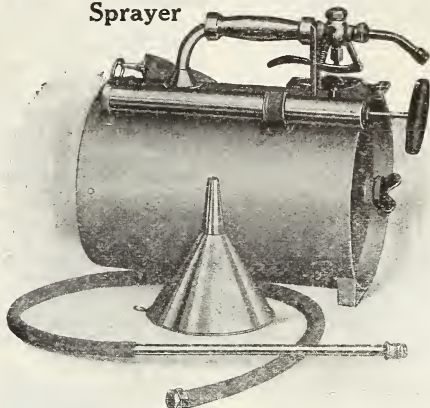
Price—Machine, 6 feet $1\frac{1}{2}$ -inch spouting, 1 flexible joint, and 1 pair combined shoulder braces, \$15.00.

Inland Special Sprayer

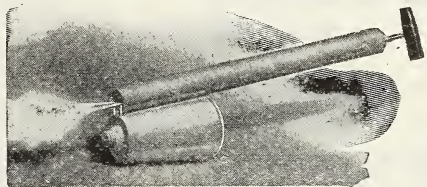
Inland Special Sprayer is a Single Tube Tin Sprayer. The pump cylinder measures $14\frac{1}{4}$ inches in length by $1\frac{1}{4}$ inches in diameter.

Sprayer is fitted with a $\frac{1}{4}$ -inch steel plunger rod; special type plunger. The special arrangement of the spraying tube is such that it thoroughly breaks up or atomizes all oils and

solutions into a fine mist-like spray which penetrates all cracks and crevices. Weight, 2 lbs. **Price**, 50c; add postage.

Lowell Fountain Compressed Air Sprayer

One pumping will expel entire contents of tank and is sufficient to spray 2,000 plants. Spraying nozzle may be reversed to spray under side of bushes and plants. The Automatic Thumb Lever Valve is at all times under complete control of operator—hence none of the solution is wasted. It saves its cost in making a given amount of compound do so much work. An adjustable shoulder strap and tree attachment with suitable couplings for orchard and tree spraying furnished with each machine. Aluminum finish. Capacity, 3 gallons. Weight, 10 lbs. **Price**, \$5.50; add postage.

Inland Powder Sprayer

In some sections potato growers, stock and poultry raisers prefer to use Paris Green and disinfectants in powder form, mixed with dry plaster. To meet such a demand the "Blow" Sprayer is recommended. This will be found to be one of the best powder sprayers on the market and will give entire satisfaction. Weight, 2 lbs. **Price**, \$1.00; add postage.

Inland Continuous Sprayer

The Inland Continuous Sprayer is so constructed that it not only sprays on the downward stroke of the plunger but also when it draws back, thus causing a continuous mist-like spray.

The air chamber measures $1\frac{1}{2}$ inches in diameter by 14 inches long. Has a $\frac{1}{4}$ -inch steel plunger rod; special type plunger. The sprayer is fitted with a 3-16 inch brass ball check valve. The solution tank is made from heavy IX tin, $\frac{3}{4}$ -inch zinc filler cap. Capacity one quart. Extra tip for spraying upwards, with each machine. Weight, 2 lbs. **Price**, \$1.00; add postage.

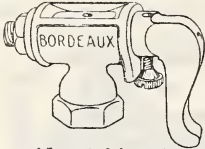
INSECT POWDER BLOWERS

JUMBO—Price, 25c; postpaid, 30.

DEFENDER—Price, 15c; postpaid, 20c.

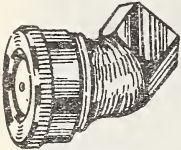
Pump Extras

PRESSURE GAUGE—Price, \$2.00; postpaid, \$2.10.



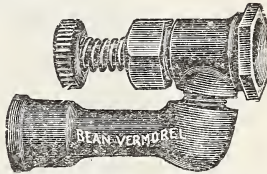
BORDEAUX NOZZLES—This nozzle is a new pattern which eliminates the common objections to this type. The handle is built close down to the body and is shaped so as to

avoid catching in the branches. The corners of the slot are cut away, leaving plain straight faces which form a clean-cut spray without ragged edges. Price, 75c; postpaid, 80c.



WHIRPOOL—This has a very large capacity, and makes a perfect cone-shaped spray. This nozzle is built on an angle of 45 degrees, allowing the operator to spray up or down by simply turning the nozzle. Price, 75c; postpaid, 80c.

VERMOREL—This nozzle throws a beautiful, misty, circular spray. All trouble caused by clogging in the bend is avoided by having the stem detachable. This also allows the nozzle to be turned at any angle desired. Price, 75c; postpaid, 80c.



BEAN WHITEWASH—The nozzle throws a fine spray or a solid stream. It is particularly recommended for whitewashing and for washing buggies. To clean when clogged, turn the thumb screw straight out for an instant. Price, 75c; postpaid, 80c.

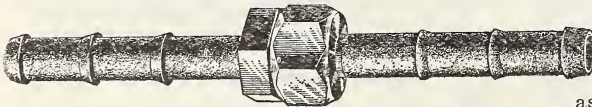
Hose Connections



HOSE CONNECTION—To connect 1/4-inch hose to spray rod. Price, each, 25c; postpaid, 30c.

Spray Hose Menders. Price, 25c; postpaid, 30c.

Spray Hose Coupling



With hexagon nuts and double length shank, so will not putt or blow out.

Price, per pair, 55c; postpaid, 60c.

Female half only, 30c; postpaid, 35c.

1/4 NOZZLE Y—The Brass Y shown here will screw onto any spray rod, and all kinds of spray nozzles screw into the other two ends. This is intended for use when two nozzles on one rod are desired.

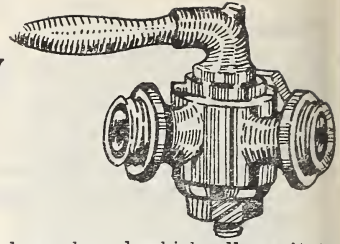
Price, 50c; postpaid, 55c.

1/4 NOZZLE ELL—It is very important to spray down into the blossom. This piece has just the right angle and screws onto the end of any spray rod. Then attach the nozzle.

Price, 25c; postpaid, 30c.



Three-Way Discharge Cock



This has a large barrel which allows it to cut off absolutely, and eliminates the trouble that has been experienced with inferior cocks. Price, \$1.50; postpaid, \$1.60.

Spray Cut-Off

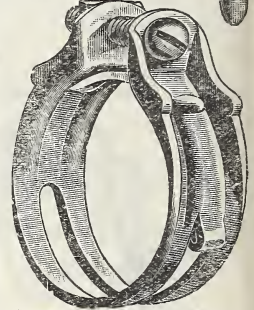
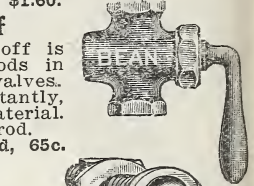
This 1/4-inch shut-off is for use on spray rods in place of globe valves. Shuts liquid off instantly, saving time and material. Can be put on any rod.

Price, 60c; postpaid, 65c.

The perfect 1/4-inch rod cut-off. Far better than a globe valve for it opens full with less than one turn of the handle. Better than any lever cut-off because it will not leak since the ball revolves instead of wearing. Fits any spray rod. Price, \$1.00; postpaid, \$1.10.

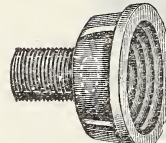
Two of these clamps can be used on our long shank couplings and men-

Price, postpaid, 5c; dozen, postpaid, 50c.



Hose Reducers

These are for connecting a male hose coupling on end of spray hose to the spray rod. The two-piece connection has a swivel joint and is easily attached. When the one-piece connection is used the entire rod must be turned in screwing on. Price, one-piece reducer, 20c; postpaid, 25c.



Spray Hose

The high pressure and corrosive and oily materials used in spraying are very destructive to ordinary spray hose, and have caused many persons to believe that hose for this purpose cannot be relied upon to last out a season's hard usage. Our Spray Hose is constructed and treated on purpose for this use, and as it saves annoyance and lasts longer, it is much more economical. Furnished in 12 1/2, 25 and 50 foot lengths, fully guaranteed. Price, 7-ply, 20c per foot; 5-ply, 15c per foot.

Fittings, 75c extra. Fittings consist of one hose connection, one female coupling and four hose clamps.

Hose Washers, 1/2-inch rubber, doz., 10c.

Bamboo Extensions



Aluminum Rod

6-foot, \$2.00; 8-foot, \$2.50; 10-foot, \$3.00; 12-foot, \$3.50.

Iron Rod

6-foot, \$1.25; 8-foot, \$1.50; 10-foot, \$1.75; 12-foot, \$2.00.

IRON ROD ONLY

5-foot, 75c; 8-foot, \$1.00; 10-foot, \$1.10; 12-foot, \$1.25.

SPRAY CALENDAR

NAME	DESCRIPTION	TREATMENT
AFFECTING THE ROOTS—		
1. Woolly aphid	Small galls containing mealy insects	Expose roots, wet with tobacco or 1 per cent potassium cyanide solution.
2. Grubs and wireworms	Feeding on the roots	No available spray treatment. Seek out and destroy insects. Trap; or poison with raisins containing strychnine set in runways.
3. Gophers	Feeding on the roots	No remedy. Do not plant affected stock.
4. Hairy-root	Excessive development of fine roots from a larger root	No remedy. Do not plant affected stock.
5. Crown gall	Smooth to warty swellings of various sizes	No remedy. Do not plant affected stock.
6. Crown-rot	Dead, sunken bark at crown of tree	Avoid forcing the growth of young trees.
7. Mushroom root-rot	White, fan-like growth beneath bark	Scrape, wash with solution of copper sulphate, and bridge-graft.
AFFECTING THE CROWN OR TRUNK—		
8. Rabbits and field mice	Gnawing bark in winter	Coat trunk in winter with whitewash containing strong sulphur-lime.
9. Borers	Tunneling beneath bark or into heartwood	Coat trunk in summer with whitewash. See No. 8.
10. Canker, Anthracnose	Irregular, discolored sunken areas	No remedy when these cankers are due to winter injury. If black-spot canker spray with Bordeaux in November and 3° sulphur-lime in February.
11. Black-heart	Heartwood dead and stained blackish brown	No remedy known.
AFFECTING THE BRANCHES AND TWIGS—		
12. San Jose scale	Ash-gray or black, round scales, pinhead in size	Oil spray or sulphur-lime about March 1.
13. Oyster-shell bark-louse	(Many broods a year) Slender bark-colored scales filled with eggs, which hatch about June 1. (One brood a year)	1. Tobacco when young are hatching (about June 1). 2. Oil spray or sulphur-lime (3°) in fall or spring.
14. Woolly aphid	Clusters of mealy lice, often near injured bark	Tobacco spray.
15. Orchard mite eggs	Miscroscopic salmon-red spherical eggs	Oil spray.
16. Aphis eggs	Minute oval jet-black eggs (winter)	Oil spray or sulphur-lime, 3° before buds swell; or tobacco when plant-lice hatch, or tobacco after lice fly to trees.
17. Tent caterpillar eggs	Frothy mass encircling a twig	Oil spray; or arsenical when caterpillars hatch. (See No. 35).
18. Lecanium	Hemispherical brown scales	Oil spray; or tobacco when scales hatch.
19. Cottony scale	Brown scales that develop cottony mass in the fall	Oil spray.
20. Cicada and tree cricket	Twigs slit to contain eggs	Prune off infested twigs before eggs hatch.
21. Bark beetle	Tunneling under bark	Not likely to attack vigorous trees. Cut infested places.
22. Lichens	Popularly known as moss	Winter spray of oil emulsion or sulphur-lime, 3°.
23. Gummosis of cherry	Glistening mass of amber-colored gum on branches	Caused by scale, bacteria, aphids, over-irrigation, etc.
24. Fire-blight of pear and apple	Dead leaves and fruit hanging to blighted branches; blackish, water-soaked cankers	Prune away blighted branches, wash pruned surfaces with 1 part of corrosive sublimate to 1000 parts of water.
25. Winter-kill or die-back	Death of branches from tip downward	No remedy. Remove dead wood.
26. Peach blight	Spotting of green twigs and formation of a gum	Prune out dead twigs. Sulphur-lime in early spring.
AFFECTING THE BUDS, NEW LEAVES, OR BLOSSOMS—		
27. Bud-weevils	Hard-shelled beetles that drop when disturbed	Use cone tree-protector of stiff paper or tin.
28. Cutworms	Work at night; live in ground during day	Coat tree with Bordeaux. Scatter poison mash near tree.
29. Ants	Eating buds, young leaves, and blossoms	Pour one per cent potassium cyanid solution in nest.

SPRAY CALENDAR (Continued)

NAME	DESCRIPTION	TREATMENT
AFFECTING THE BUDS, NEW LEAVES, OR BLOSSOMS—(Continued)		
30. Budworm; twig-borer ---	Working in terminal growth curling leaves --- A small brown spinning worm ---	1. Oil spray or sulphur-lime, 3°, when buds swell. 2. Arsenate of lead when injury noticed.
31. Snapping beetle ---	Feeding in the blossoms ---	No treatment.
32. Chafer beetle ---	Feeding through the blossoms ---	No treatment.
33. Salmon-fly ---	Feeding in the blossoms ---	Spray with arsenate of lead.
34. Thrips ---	Minute, active, slender insects ---	Tobacco.
AFFECTING THE FOLIAGE—		
35. Tent caterpillars ---	Working from web-nests ---	Spray with arsenate of zinc when caterpillars appear, burn with torch.
36. Tussock moth ---	Caterpillars covered with bunches of hairs ---	Spray with arsenate of zinc when caterpillars appear.
37. Red-tump caterpillar ---	Striped caterpillars with red head and collar ---	Spray with arsenate of zinc when caterpillars appear.
38. Crab-apple ---	---	Spray with Bordeaux, and scatter poison mash.
39. Curculio twigworm ---	---	See No. 28.
40. Peaching cherry slug ---	Slimy caterpillars feeding on upper surface ---	Spray with arsenate of lead; or dust with lime, ashes.
41. Black aphid ---	On cherry ---	Spray early with tobacco.
42. Green aphid—Pink aphid ---	---	Tobacco (summer), oil spray, or sulphur-lime, 3° (winter).
43. Blister-mite ---	Red, brown to black spots; on pear ---	See No. 6.
44. Leaf-hopper—Tingis ---	Sucking insects producing spots in leaves ---	Oil spray, or sulphur-lime when dormant.
45. Orchard mite ---	Causing leaves to yellow ---	Tobacco spray, noticed. See No. 15.
46. Peach leaf-curl ---	Leaves puckered becoming rose or purple ---	Spray sulphur-lime before leaves appear.
47. Powdery mildew ---	Whitish patches on leaves, twigs and fruit ---	Spray sulphur-lime, 1½%.
48. Rosette ---	Cessation of twig growth, rosetting of leaves ---	No remedy known, intercrop.
49. Shot-hole diseases ---	Brown spots on leaves, later falling out ---	Spray with sulphur-lime when buds are swelling.
AFFECTING THE FRUIT—		
I. Infesting the Outside of the Fruit:		
50. San Jose scale ---	Usually surrounded by red ring ---	No summer treatment. See No. 12.
51. Oyster-shell scale ---	Shaped like miniature mussel-shell ---	No summer treatment after scale is formed. See No. 13.
52. Caterpillars ---	Several species may nibble on skin ---	Arsenate of lead as soon as injury is noted.
53. Apple scab ---	Dull greenish-black patches on leaves and fruit ---	Destroy fallen leaves. Use sulphur-lime, 1½% before blossoms open, where scab is abundant repeat after petals fall.
54. Brown rot of prunes ---	Small circular brown spots, giving rise to spore-tufts ---	Destroy mummied fruit; spray sulphur-lime in summer.
55. Baldwin speck; fruit spot ---	Skin spots appearing early, works into fruit ---	No remedy known.
II. Infesting the Inside of the Fruit:		
56. Codling-worm ---	The common worm in apple or pear ---	Arsenate of lead, with force directly into every flower. Keep a few trees banded. If many worms are trapped, later spraying may be given.
57. Peach worm ---	Same insect as twig borer ---	No satisfactory summer treatment. See No. 30.
58. Apple saw-fly ---	Green caterpillar mining in fruit ---	No known treatment.
59. Water core ---	---	Do not leave too long on trees.

HOW TO SPRAY

Spray thoroughly. Direct your attention to the hardest places to reach. Cover every surface. Wet behind the buds. Reach the bottom of every crack. Fill the lower calyx cup. Do not try to economize on spray. For all orchard spraying use a high pressure pump (at least 200 lbs.). Have a crook to set the nozzles at an angle of forty-five degrees. Spray from a tower if the trees are beyond your reach.

Sulphur-Lime

Sulphur	-----1 pound
Fresh stone lime	-----½ pound
Water	-----½ gallon

Slake the lime in the cooker. Add the sulphur and the water. Boil briskly till the sulphur is dissolved (about 45 minutes), stirring continuously and keeping the cooker covered. As it boils down keep adding water. When finished let settle. Use only the clear liquid, which may be stored if kept from the air. Prepared in this way sulphur-lime should have a hydrometer reading of about 26 degrees, somewhat weaker than the factory-made product. Write for bulletin No. 64.

For use, any concentrated sulphur-lime may be diluted according to the following table:

Hydrometer test of concentrate		To make dilute spray	
Beaume degrees	Specific Gravity	Sulph. 3° Beaume	Water 1.5° Beaume
34	1.302	1 lb. sulphur	1 lb. water
32	1.279	1 lb. sulphur	1 lb. water
30	1.259	1 lb. sulphur	1 lb. water
28	1.236	1 lb. sulphur	1 lb. water
26	1.215	1 lb. sulphur	1 lb. water
24	1.196	1 lb. sulphur	1 lb. water
22	1.178	1 lb. sulphur	1 lb. water
20	1.160	1 lb. sulphur	1 lb. water
18	1.142	1 lb. sulphur	1 lb. water
16	1.122	1 lb. sulphur	1 lb. water

Oil Spray

Crude oil emulsion for winter spraying:	
Fish-oil soap	-----10 pounds
(Dissolved in 10 gal. hot water)	
Lye	-----2 pounds
(Dissolved in 1 gal. water)	
Mix, add water to make 88 gal., run agitator at full speed, and add	
Crude oil (not fuel oil)	-----10 gallons
When emulsified do not add anything else to the spray-liquid, or free oil will separate. Write for Bul. No. 64.	

Tobacco

Blackleaf 40	-----12½ pounds
Fish-oil soap	-----35 pounds
Water	-----1000 gallons
Dissolve the soap in hot water. Blackleaf (old style) is one-tenth as strong.	
For orchard mites or scab add 36 gallons of 32° sulphur-lime.	

Bordeaux

Bluestone	-----6 pounds
Good lime	-----4 pounds
Water	-----50 gallons
Dissolve the bluestone by suspending it in a sack in 25 gallons of water in a barrel. Slake the lime in another vessel adding a little water slowly, and dilute to 25 gallons. Mix the two thoroughly. Even the best Bordeaux may scorch in rainy weather.	

Poison Mash

Bran or flour	-----25 parts
Paris green or zinc arsenate	-----1 part
Mix dry, add water to form a stiff mash and season with stale beer, molasses or ground-up lemons.	

Arsenate of Lead

Arsenate of lead (poison)	-----1 pound
Water	-----50 gallons
For newly hatched insects it is not necessary to use it stronger. For old or large insects use double the quantity. Mix the paste well with a small amount of water. Powdered arsenate of lead is about twice as strong as the paste. Do not use arsenate that settles quickly or feels gritty.	
Arsenate of zinc powder is about four times as strong as paste lead. It may scorch in a damp season.	

Program for the More Usual Spraying

- When buds begin to swell
Oil spray or sulphur-lime (3°)
For scales, insects and fungi
Tobacco
For aphids, orchard mites, thrips, leaf-hoppers
With arsenate added
For budworm, twig-borer
When flower clusters are ready to open
Sulphur-lime (1.5°)
For apple and pear scab
With tobacco added
For orchard mites, thrips, aphids
- When last petals are falling
Arsenate of lead, 1 lb. to 50 gal.
For codling moth
- In November (for Western Washington)
Sulphur-lime (3°) or Bordeaux
For black-spot canker
Additional summer sprayings may be needed as for codling moth, aphids, young oyster shell scales, orchard mites, etc.

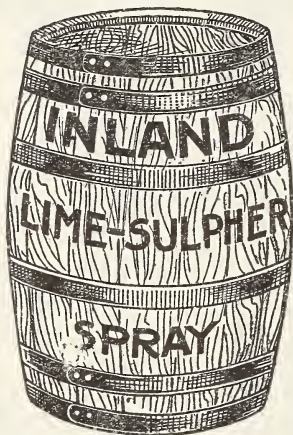
SPRAY MATERIALS AND INSECTICIDES

The secret of successful spraying lies in knowing the correct time in which to spray.

The very important fact that thoroughness in spraying is one of the main points should be remembered. Many failures can be traced to the lack of thoroughness.

It is also important that the orchardist should become familiar with the name and character of the different diseases and pests. If the disease is not known apply to your inspector for information. Specimens of diseased fruit or leaves, or other portions of trees or plants, may be forwarded to your state experiment station at no cost, where a careful microscopical examination will be made and the disease identified.

INLAND LIME AND SULPHUR SOLUTION



It is a true calcium sulphide—a true calcium sulphide means a perfect chemical combination of lime and sulphur, free from all sediment, uniformity which guarantees the same identical treatment as to strength and effect tree for tree, and which allows the wash to be applied to delicate bud life, blossom condition and foliage as well as the dormant tree, both for fungicidal and insecticidal troubles as well as San Jose Scale, Oyster Shell Bark, Louse, Moss, Apple and Pear Scab, Slug Worms, etc. The wide range of diseases that fruit trees are subject to that it will control, proves it to be the best general fruit sprayer that has yet been discovered.

Price, gallon, 75c; 5 gallons, \$2.00; case, \$3.75; barrel, \$9.00; for large quantities, write for price.

SOLUBLE SULPHUR COMPOUND

This compound is analogous in chemical form to the calcium polysulphides of a high grade lime-sulphur solution.

Extensive use of this material during the past years, and its entering into nearly every fruit district of the United States and Canada, fully demonstrates the value, economy and convenience of Soluble Sulphur Compound. Soluble Sulphur is the sulphur spray with the water left out.

It is ready for the user to add the water and in an instant have a true sulphur solution. It dissolves readily, it being necessary to stir for a few moments only as the material is put in the water. Once dissolved it remains in solution for an indefinite time.

One hundred pounds of Soluble Sulphur Compound makes more spray than a fifty-gallon barrel of thirty-three degree lime-sul-

phur solution weighing over six hundred pounds, thus effecting a saving on freight charges.

There is no leakage, no freezing, no crystallization. It should be used on all kinds of trees and shrubs in spring, before buds open, for Scale, Aphis, Curl Leaf, Mildew, and as a general clean-up; and later for control of Scab and Fungus diseases.

Soluble Sulphur Compound will keep indefinitely, without loss of strength, if the can is kept tightly covered and in a dry place.

PRICES

1-pound can, 20c; add postage.
10-pound can, \$1.25; add postage.
100-pound drum, \$7.50;

SPRAYOMETER

The Lime-Sulphur wash for spraying has become recognized by the orchardist as one of the best and most economic remedies for numerous forms of disease, fungi and insects, injurious to fruit trees.

It is necessary to know the strength or weight of the solution and the only practical way of ascertaining this is by means of a Hydrometer. The Hydrometers made for this purpose are known as "Sprayometers." In selecting these instruments consideration should be given to the fact that only the most accurate will give the best results, and that "Taylor-Rochester" is a synonym for accuracy. Price, \$1.00; postpaid, \$1.10.



BLACK LEAF "40"

A Concentrated Solution of Nicotine-Sulphate (Poison)

For the convenient information of those desiring to use "Black Leaf 40" the following suggestions are made:

Against sucking insects, such as Green and Woolly Aphis, Pear Psylla, Grape Leaf Hopper, Pear Thrips, etc., 1 part "Black Leaf 40" to about 900 to 1000 parts water.

Against more resistant plant lice, such as Black Aphis and Rosy Apple Aphis, 1 part "Black Leaf 40" to about 500 to 700 parts water.

The addition of one or two pounds of any good soap, or of Whale Oil soap, to each 50 gallons of water is often very advantageous. When using dissolve the soap in the water before adding "Black Leaf 40."

Price, 1 oz. bottle, 25c; ½ lb. tin, 75c; 2 lb. tin, \$2.50; 10 lb. tin, \$10.75; not mailable.

Bluestone

Used successfully in winter sprays. Lb., 15c; add postage. If wanted in 100-lb. or barrel lots, market price.

Arsenate of Lead is a chemical combination of lead and arsenic. The arsenic is the poisoning agent. The lead serves two purposes—it acts as a binder, holding the arsenic upon the foliage and forms a strong chemical union with the arsenic, reducing to the minimum soluble arsenic, which causes foliage injury.

Grasselli Arsenate of Lead Paste contains 15 per cent arsenic oxide, combined with the maximum amount of lead consistent with good mixing qualities. It contains less than ¾ of 1 per cent soluble arsenic and will not injure the most delicate foliage when used according to directions.

It kills all leaf eating insects. Mixes readily with water. Sticks to the foliage.



Grasselli Arsenate of Lead conforms to the most rigid requirements of National and State laws governing the manufacture and sale of insecticides.

Owing to the uncertainty of prices we are making our best quotations at present, but suggest that you write for prices, as the quotations here named may be changed.

Prices—One lb., 25c; 5 lbs., \$1.00; 10 lbs., \$1.50; 20 lbs., \$2.50; 50 lbs., \$5.75; 100 lbs., \$11.00; add postage.

Dry Powdered

Grasselli Dry Powder Arsenate of Lead mixes quickly and easily; stays mixed longer and is very adhesive. Dry Powder Arsenate is a light, fluffy powder that cannot freeze, dry out, cake or lose its strength.

Grasselli Dry Powder Arsenate of Lead may be mixed with water and applied as a liquid spray or it may be used as a dust spray. If applied as a liquid spray it is usually used 1 pound to 1½ pounds to 50 gallons of water. For potato beetles and other insects that are hard to kill use two to three pounds to 50 gallons of water. If used in the dust form it may be applied as received by finely dusting on the foliage or it may be mixed with an equal bulk of freshly burned wood ashes or powdered lime. 100 lbs., \$24.00; 50 lbs., \$12.50; 20 lbs., \$6.00; 10 lbs., \$3.50; 5 lbs., \$1.75; 1 lb., 40c; add postage, and see note on lead paste regarding price.

One and five pounds can be forwarded by mail; postage additional.

GRASSELLI SULPHATE OF NICOTINE

Grasselli Sulphate of Nicotine, Guaranteed to Contain 40 per cent Nicotine.

This product is recommended to destroy most plant lice, such as Woolly Aphis, Green and Rosy Apple Aphis, Rose Aphis, Pear Psylla and Grape Leaf Hopper, in orchards, vineyards and truck crops. Apply as soon as plant lice appear. As a general rule, use three-fourths of a pint to one pint to one hundred gallons of water, or one to two teaspoonsfuls to one gallon of water.

Sulphate of Nicotine may be combined with Arsenate of Lead or Lime Sulphur Solution, or both. 2 oz., 25c; ¼ lb., 50c; ½ lb., 75c; 1 lb., \$1.50; 10 lbs., \$10.75; not available.

GRASSELLI BORDEAUX MIXTURE PASTE

A fungicide for Potato Blight, Potato Rot, Mildew, Leaf Blight, Cutworms, etc. Before bloom use 1 lb. to 6 gallons of water, after bloom use 1 lb. to 10 gallons.

Price, 1 lb. jar, 35c; 5 lbs., \$1.25; not available.

FORMALDEHYDE

This has proved to be much better than vitriol, etc., for treating grain to prevent smut or for treating potatoes to prevent blight and scab. One pound is sufficient to treat 40 to 50 bushels of grain. ½ lb. bottle, 25c; 1 lb. bottle, 40c; 2 lb. bottle, 65c; not available.

Paris Green

Poor Paris Green is dear at any price. Effective against all chewing insects. ¼ lb., 15c; ½ lb., 20c; 1 lb., 35c; add postage.

Whale Oil Soap

For hop louse and green aphid. 1 lb., 10c; add postage; 100 lbs., market price.

Quassia Chips

Used with Whale Oil Soap for lice on cabbage, cauliflower, etc., and on fruit trees. 1 lb., 15c; add postage.

Hammond's Slug Shot

For destroying slugs, cabbage and turnip flea, currant worms, etc. 1 lb., 15c; 5 lb. pkg., 50c; add postage.

Sulphur

Powdered, 1 lb., 5c; add postage; 100 lbs., market price.

Hammond's Grape Dust

To prevent mildew on roses, grapes and gooseberries. 1 lb., 15c; 5 lb. pkg., 60c; add postage.

Tobacco Dust

For green and black aphid, fleas, beetles. 1 lb., 10c; 10 lbs., 75c; 25 lbs., \$1.75; 50 lbs., \$3.25; 100 lbs., \$6.00; add postage.

Woodlark Squirrel Poison

Requires no mixing preparation—always ready for use. When you buy demand the best. Get the "Woodlark" brand. Package, 35c; 10 lb. pkg., \$2.75; mailing weight 2 and 12 lbs.; add postage.

Nico-Fume Tobacco Paper

For fumigating greenhouses and other places where fumes can be confined. Considered indispensable by our most successful greenhouse men. Price, 24 sheets, 85c; 144 sheets, \$4.00. Weight, 1 lb. and 5 lbs. Add postage.

Hellebore

Especially used for destroying turnip, currant and gooseberry worms, larva of sawflies, etc. 1 lb., 35c; add postage.

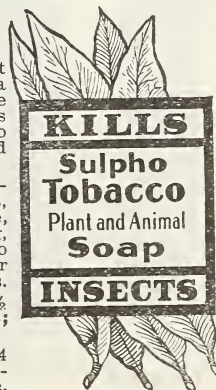
SULPHO-TOBACCO

Sulpho-Tobacco plant and Animal-Soap is a wonderful agent for the destruction of all bugs and insects. One or two applications will rid plants of the pests.

Destroys cabbage, potato and squash bugs, currant worms, lice, green-fly, mealy bug, red spider, etc. Is also valuable as a wash for dogs and other animals.

3 oz. cake makes 1½ gallons solution. 10c; postpaid, 15c.

8 oz. cake makes 4 gallons prepared solution. 20c; postpaid, 25c.

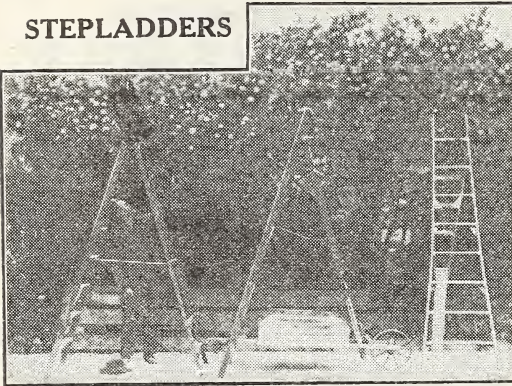


TREE TANGLEFOOT



To protect trees against climbing insect pests in a simple, economical and effective way, use Tree Tanglefoot—a sticky substance applied directly to the bark of trees. One application remains sticky three to four months fully exposed to the weather. Easily applied with a wooden paddle. One pound makes a band 8 to 9 feet long. No mixing, always ready for use. Will not injure trees. **Lb. can, 30c; 3 lb. can, 85c; 10 lb. can, \$2.65.** Mailing weight, 2, 4 and 11 lbs.; add postage.

STEPLADDERS



No. 2

No. 10

No. 11

The Never-Slip Stepladders are constructed of carefully selected No. 1 fir, securely put together with bolts and screws. They have the latest improved steel head, making a ladder, light, strong and durable.

Price, No. 2, Safety Stepladder, per foot, 50c.

Price, No. 10, Safety Stepladder, per foot, 50c.

Price, No. 11, Safety Stepladder (can be extended, making a pointed ladder), per foot, 60c.

FRUIT PICKING BAG

The mouth of this bag is a novel shape, admitting the putting of the fruit in the bag with either hand, or using both hands at the same time, and when bag is full it is emptied by placing the bottom of the bag in a box, releasing a snap. Thus it will be seen that the taking of the fruit from the tree and delivering it in the box is done with the least exertion and with the highest rapidity and least liability of injury to the fruit. As the bag is shown in cut it will hold about a bushel. When snapped at the frame where strap is fastened in front it will hold about a half bushel. The frame is heavy enough to keep its shape, the canvas is 10-oz., and every point is reinforced where from experience it has been found necessary. This bag is acknowledged to be the best bag now on the market. **Price, \$1.75; mailing weight, 3 lbs.; add postage.**

Edgemont Lid Press



All fruit growers sooner or later feel the need of a good, durable and handy **LID PRESS**.

SAVING TIME is just as essential in the packing house as it is in the shop or factory. A number of special features of the Edgemont Lid Press are time savers, which are quickly appreciated by the user. The stripper nail box delivering the nails all pointed down; the placing of the lids in position endwise by the clamping yoke; the little spring attachment holding the cleat in place, all tend to make nailing an easy, quick and simple operation. **Price, \$15.00.**



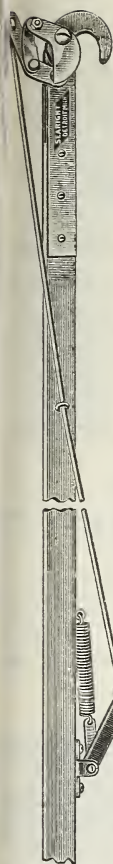
Pruning Tools

SEARIGHT—This has a compound lever head and is made with a hook and side lever. It is calculated for heavy work and will cut a limb up to 1½ inches in diameter. Instead of running the rod connecting the knife lever along one side the pole to a handle lever, the handle lever has been placed on the opposite side, which allows the rod to cross the pole. As a result one-half of the strain is thrown on one side of the pole and one-half on the other, which gives about double strength.

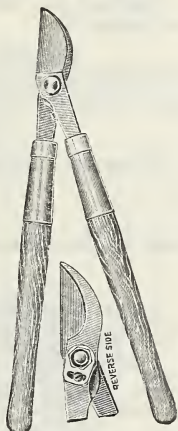
The strength durability and easy cutting qualities of these trimmers will appeal to both the merchant who handles them, and the man who may have the pleasure to use them.

Price, 8 ft., \$2.00.

Price, 10 and 12 ft., \$2.25.

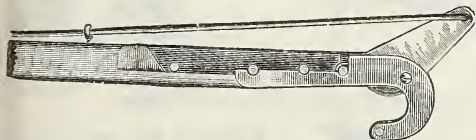


No. 1

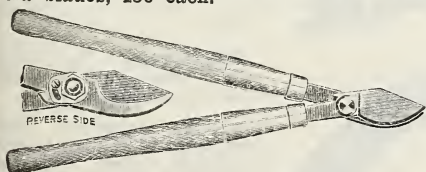


CRONK'S CARTRIGHT PATTERN NO. 226.

—Forged from high grade tool steel and finely tempered, wrought steel ferrule polished. Has the Cronk patent locknut and cannot work loose and ruin the shears. Length 26 inches, weight 3 lbs. Price, \$2.00; add postage.



WATERS'—Indispensable in pruning tall trees. Cannot go by mail. Purchaser will have to pay freight or express charges. Price, 6 ft., 75c; 8 ft., 90c; 10 ft., \$1.00; 12 ft., \$1.15; extra blades, 15c each.

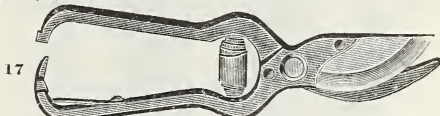


FRESNO PATTERN NO. 126.—Forged from high grade tool steel, finely tempered. Solid wrought steel ferrule. Has lock nut and cannot work loose and ruin the shear. Strictly high grade and has no equal. Length 26 inches, weight 3 lbs. Price, \$1.75; add postage.

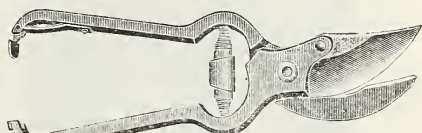
Hand Pruners



No. 4—This pruner will be found second to none in easy cutting quality, material and workmanship. Polished. Price, \$1.50; postpaid, \$1.55.



17



27



101

17—Length, 9 inches. Detachable polished tempered steel blade. Price, 60c; postpaid, 65c.

27—Length, 9 inches. Detachable blade of cutlery steel. Notched hook, forged from tool steel, full polished and tempered. Price, \$1.50; postpaid, \$1.60.

101—Length, 6½ inches. Made extra heavy. Price, 40c; postpaid, 45c.

KNIVES



PX3H

PX3H—60c; postpaid, 65c.

PX761—50c; postpaid, 55c.

PX2HS—60c; postpaid, 65c.

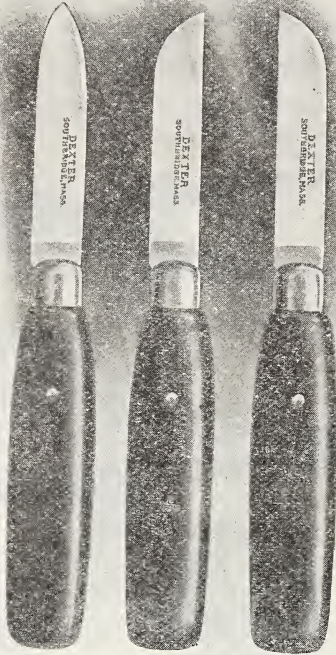


PX761



PX2HS

KNIVES—Continued



2½ V

2½ J

2½ Z

Grafting, No. 2½ V—50c; postpaid, 55c.

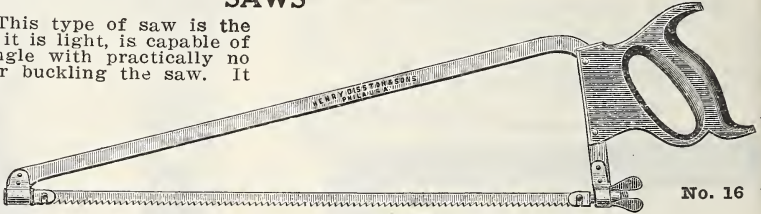
Budding, No. 2½ J—50c; postpaid, 55c.

Budding Spear, No. 2½ Z—50c; postpaid, 55c.

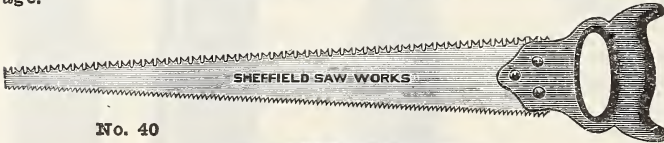
All of the blades are made from a very high grade English crucible tool steel; they are given the proper temper for the particular work required; they all are ground sharp

SAWS

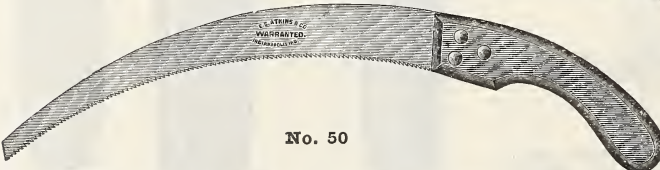
DISSTON No. 16—This type of saw is the most popular because it is light, is capable of being used at any angle with practically no danger of breaking or buckling the saw. It will cut rapidly, make a clean cut with no danger of wounding the bark. No orchard kit of tools is complete without a saw of this type. Weight, 2 lbs., \$1.50; add postage.



No. 16

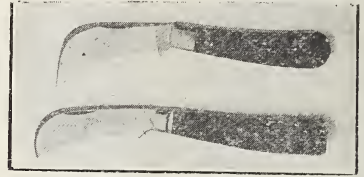


No. 40



No. 50

and hand honed, leaving them ready for use. The handles are oval rubberoid of a shape to fit the hand. The ferrules are of heavy construction, oval, nickel plated, and the blades are pinned in handles, preventing any possibility of their coming out or becoming loose



7

6

6—Polished wood handle. Price, \$1.00; postpaid, \$1.05.

7—Plain wood handle. Price, 75c; postpaid, 80c.

"Lightning" Grass Trimming Shears

For trimming ground, flower beds, etc. Weight, 1 lb. Each, 50c; postpaid, 55c.

Grafting Wax

One-half lb., 20c; postpaid, 25c; 1 lb., 35c; postpaid, 45c.

Grafting Wax Twine

Twenty spools in box. Spools, each, 10c; doz., \$1.00; box, \$1.50; postpaid, \$1.60.

Beeswax

Price, 60c; postpaid, 70c.

Raffia

Natural color; for nursery work. ¼ lb., 15c; 1 lb., 25c; postpaid, 35c.

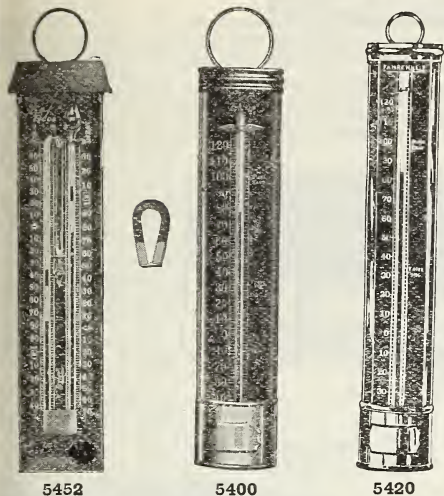
Labels

TREE LABELS—3½ inches wide, 100, 15c; 500, 60c; 1000, \$1.00; mailing weight 4 lbs. per 1000; add postage.

POT LABELS—4 inch, 100, 15c; 500, 50c; 1000, 85c; 8-inch, 100, 30c; 500, \$2.00; 100, \$1.75; mailing weight, 11 lbs. per 1000; add postage.

Our Hobbies: Quality and Service

GREENHOUSE THERMOMETERS



5452

5400

5420

No. 5452—Self-registering, 10 inches, black oxidized brass scales, white filled figures, black Japanned tin case. \$4.00; postage 10c extra.

No. 5400—Standard Grade, 10 inches, black Japanned, heavy tin case. \$1.50; add 5c for postage.

No. 5420—Selected Grade, 8 inches, black Japanned tin case. 50c; add 10c for postage.

Hot Bed Thermometers



No. 5981—Standard Grade, 16 inches, wood frame with handle, brass pointed ferrule, brass oxidized scales, white filled figures and graduations. \$2.50; add 10c for postage.



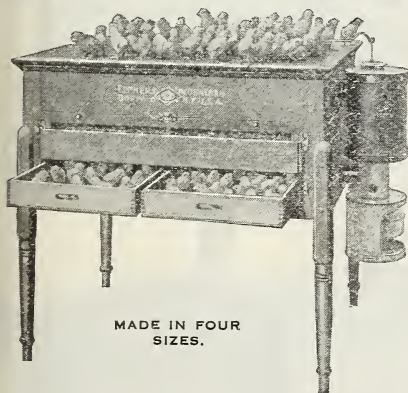
No. 5982—Medium Grade, 16 inches, wood frame with handle, brass pointed ferrule, glass cylinder, hand written paper scale. \$1.50; add 10c for postage.

Incubators—Cyphers

Made in Three Styles—Eight Different Sizes

For the season of 1916 we offer our customers the Cyphers Incubator Company's complete line of Incubators and Brooders. These three styles of high-class, guaranteed hatching machines, running through eight different sizes, represent all that is efficient, convenient and reliable in incubator construction. In buying a Cyphers Company Incubator you take no chance.

Standard Cyphers Incubators



MADE IN FOUR
SIZES.

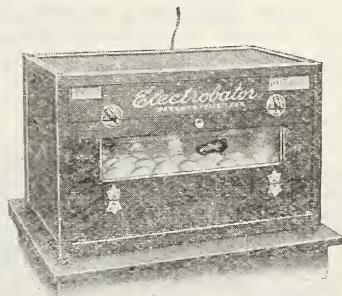
These are machines that for nineteen years and more have been recognized as the "Standard hatchers of the world." Tens upon tens of thousands of them have been sold and are in **successful use in every civilized country on the globe.** They are used by more Government Experiment Stations, more large, practical poultry plants, on more successful duck and egg farms, and by a larger number of foremost poultry breeders than all other makes combined. They are the last word to date in incubator building, not a penny being spared anywhere in their construction to make sure of their doing satisfactory work in all climates, under widely different conditions, in the hands of all sorts of people. They are built to hatch and to last. With ordinary care they should last an ordinary lifetime. Every Standard Cyphers Incubator is guaranteed by the manufacturers to do first-class work in the hands of every purchaser who will give it a fair trial. Made in four popular sizes and at prices as follows: 70 eggs, \$17.50; 140 eggs, \$27.00; 244 eggs, \$40.00; 390-400 eggs, \$47.00.

ELECTRIC INCUBATORS

The Cyphers Company were pioneers in the field of electric incubation and brooding, and their machines have proved to be the most simple and efficient hatching apparatus ever invented. All parts of the United States and Canada have tested these machines with uniformly successful results. These Electrobators are built of quarter-cut oak, and as there is no dirt or smell in operating them, they can be conveniently used in the best room in the house. Inserting the plug in an ordinary electric light fixture and switching on the current is all the setting up they need, and in hatching the only labor required is the turning of the eggs. Actual meter tests show the cost of running to be from 50 cents to 90 cents per hatch. High percentage hatches are the rule, and they are fire-proofed and insurable.

CYPHERS ELECTROBATOR—Made in two sizes, finely finished, quarter-sawn oak cases. No. 1 Electrobator, capacity 60 hen eggs, price, \$20.00. No. 2 Electrobator, capacity 120 hen eggs, price, \$27.00.

Not carried in stock, but will secure it on short notice.



"Electrobator"

Cyphers Semi-Mammoth Incubators

Made in two popular sizes, 1200 and 1600 eggs; heated by blue-flame oil stove or gas. Also made in larger sizes to be heated by gas or coal. Are built complete in factory and shipped in sections ready to be set up with ease and accuracy by any handy man.

The Syphers Semi-Mammoths are suited for poultry plants, egg farms and duck ranches, etc. They embody numerous patented features of the world-famous Standard Cyphers Incubators and will do excellent work in any latitude or section where it is practical to hatch and brood chickens or ducks by natural methods. Are self-regulating and self-ventilating; have double walls and roomy nurseries for newly-hatched chicks or ducklings; do not require heater pit, but stand free on floor of apartment and can be moved about like any small incubator.

Illustrated descriptive circular and prices on request.

Not carried in stock, but will secure it on short notice.

Columbia Hot-Air Incubators

Are built to meet the wide-spread demand for large capacity lamp-heated machines that can be sold at surprisingly low prices and yet be guaranteed to do high-class work. Have wooden cases, attractively finished in dark green, with brass trimmings and double walls. Seamless-bottom lamp bowls, best quality brass burners, zinc and steel Standard Cyphers toggle-joint thermostat and same regulating equipment as used on higher priced machines. Fume-proof, forced draft heater, asbestos covered and metal banded. Automatic in ventilation and embodies diffusive principles. Roomy chick nursery under egg trays. Made in two sizes: 140 eggs, \$18.50; 250 eggs, \$25.00.

Superior Hot-Water Incubators

These machines are exactly what the name says. They are heated by hot water, instead of hot air, and are "superior" in every detail. The water boiler and tank (tubular) are of heavy weight copper. Lamp has seamless bowl; burner is best on market. Incubator case is of wood, attractively finished in golden brown, with brass trimmings and has double walls, with air space insulation. Are equipped with Standard Cyphers zinc and steel toggle-joint thermostat and knife-edge regulator. Have forced water circulation and are automatic in ventilation. Roomy chick nurseries. Made in two sizes: 65 eggs, \$13.50; 130 eggs, \$18.00.

MADE IN TWO SIZES.

MADE IN TWO SIZES.

The Peerless Automatic Incubator

Small enough to give the greatest efficiency in hatching. Large enough to give the greatest economy in operation. Cheap enough so that any man or woman who wants to make money in poultry can afford it.

HEAT, MOISTURE, VENTILATION, ALL AUTOMATIC

We all know the important connection between, heat, moisture and ventilation in an incubator. To preserve an even and constant balance between these three vital features has been the great problem among incubator manufacturers.

The heating system is a masterpiece of simplicity. The heated air is conveyed upwards through the egg chamber to the heat distributor. The heated air from the lamp never enters the egg chamber directly.

Moisture is supplied by an open water jacket which surrounds the heat flue. Thus center heat is eliminated and it is an absolute fact that the inside of the egg chamber is not a fraction of a degree warmer at the heat flue than at the center or outer edge.

The action of the regulator is governed by the expansion and contraction of a sensitive double wafer thermostat. There is only one adjustment—just simply turn the single adjusting screw and you set the thermostat.

The entire egg chamber is reached by simply lifting off the top and placing it on the holder provided for it.

Made entirely of metal with the exception of the glass top, through which the entire interior of the machine can be inspected without opening it. The thermometer rests just above the eggs and is plainly visible.

Price, \$8.00. Will not go by mail.

Peerless Automatic Incubator

Brooders—Cyphers

The Standard Cyphers Brooders are not only fire-proof and insurable, but are the most durable, convenient and most efficient indoor and outdoor brooders thus far invented and placed on the market.

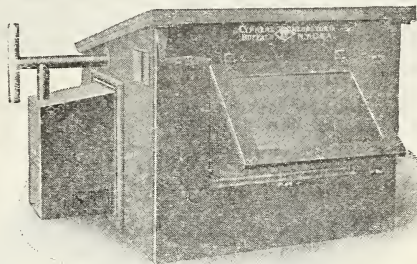
All Cyphers Brooders are self-regulating, self-ventilating and vermin-proof. They are usable also as colony coops for the growing chicks. They are easily and quickly converted into colony roosting coops by simply taking out the hover, which is made removable for that purpose.

Style A Outdoor Brooder

The Style A Outdoor Brooder is recommended for use of poultry raisers who feel that they do not wish to invest in the larger sized and more costly three apartment outdoor brooders. The Style "A" is equipped with the Cyphers Fire-Proof Brooder Heater and Standard Adaptable Hover. Top heat is used exclusively, thus giving the chicks free use of all space underneath the hover. The Adaptable Hover is self-regulating and self-ventilating, and provides a constant supply of fresh, warmed, pure air beneath the hover for the little chicks.

The double frame door of this brooder is of great convenience to the operator—the sill being on the level of the floor makes cleaning easy—while ample ventilation is secured, at the same preventing rats, cats and other chick enemies from gaining access to the brooder. The outer door, hooked up part way, allows ventilation and prevents rain beating in.

Dimensions: Floor space, 32x22 inches; height, 32 inches in front, 24 inches at rear. Capacity, seventy-five newly hatched chicks. **Price \$20.00.**

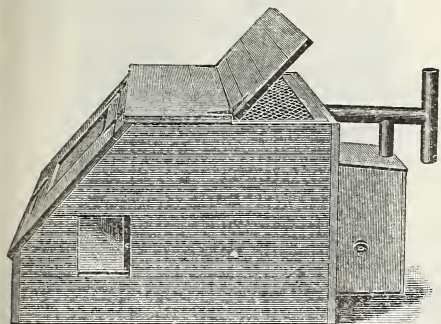


Cyphers Style A Outdoor Brooder

Cyphers Style D—Indoor Brooder

This Insurable Indoor Brooder is practically the same in all respects as the Style A outdoor type, except that the upper half is more convenient in shape and construction for indoor use. This type of brooder, equipped complete with the Standard Cyphers Adaptable Hover, is for use in any kind of building, including rooms in dwellings, or suitable places in barns, sheds, or poultry houses. They furnish a comfortable lodging place for early hatched chicks direct from the incubator.

Dimensions of Cyphers Style D Indoor Brooder: Floor space, 32x32 inches; height, 32 inches in front, 24 inches at rear. Capacity, seventy-five newly hatched chicks. **Price, \$15.00.**



Cyphers Style D Indoor Brooder

Style B—Outdoor Brooder

The Style B Outdoor Brooder has all the favorable features found in the Style A, and in addition has a large exercising apartment, thus securing twice the floor space.

The Style B Brooder has the exercising apartment separated from the hover apartment by a partition. A small chick door in each end of this partition does away with four corners. Each door is covered with a slitted felt curtain, thus keeping drafts out of the hover apartment, while for night use a wooden door will close the opening.

Dimensions: Floor space, 32x62 inches, 32 inches in front, 24 inches in rear. Capacity, one hundred newly hatched chicks. **Price, \$25.00.**

PEERLESS—The Peerless Brooder is round. It is made entirely of metal with the exception of the flannel hover, and is finished in beautiful blue rust-proof enamel.

It is the lampless or fireless type. We provide a portable hot water heat retainer.

This retainer is partly filled with water, then heated on a stove or flame. One heating of the retainer every twelve hours is sufficient to keep the hover warm. In mild weather the retainer is needed only for the newly hatched chicks until they are several days old. After the chicks are a week old the animal heat of their own bodies will warm the hover, except in cold weather. Capacity, 50 chicks. Weight, 9 lbs. **Price, \$3.50.**



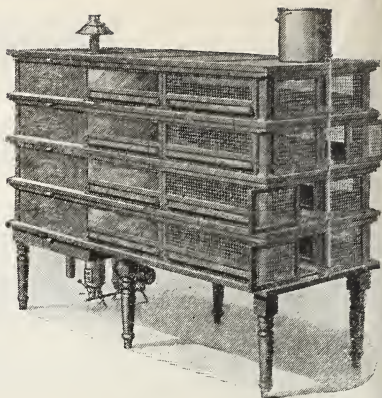
THE PARADISE BROODER

We believe the Paradise One-Lamp Sectional Brooder to be the best indoor brooding device invented thus far as a practical, convenient and economical nursery for newly hatched chicks and ducklings. It embodies the correct principles of brooding chicks and ducklings by artificial means. Heat is furnished in the right way for growing chicks. Plenty of light gets into each section. Ventilation of all parts of this brooder is thorough. There is plenty of room for exercise. Fresh water is easily supplied to each flock of chicks.

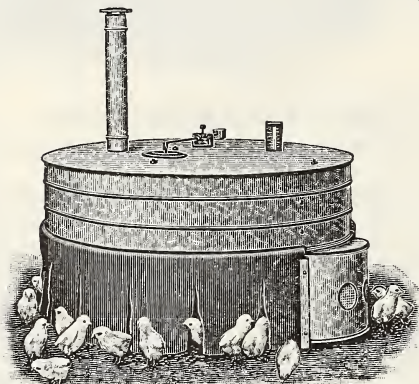
Complete brooder has four sections, each section holding two separate flocks of 50 chicks. Total capacity 400 chicks. Means for feeding and caring for chicks are very convenient and chicks are always under control of the operator. One large oil heater provides warmth.

Price, Base Section, \$31.00. Additional sections (can be added as desired), each \$21.00.

Not carried in stock but will secure this on short notice.



Hovers



PORTABLE—The Cyphers Portable Hover is recommended especially for use indoors in poultry houses, brooding houses, colony houses and large roosting coops. As it is equipped with the same high-grade thermostat as the Cyphers Incubators and the Cyphers Adaptable Hover, it maintains a **steady and uniform heat**. It is self-regulating and positively and infallibly automatic in ventilation, preventing the trapping of "dead" air or poisonous gases underneath the curtain. Does not have central heat dome against which chicks can crowd or pile up.

This Portable Hover, as its name indicates, can be picked up at any time, all complete, and moved about without hindering its operation. Capacity, 75 newly hatched chicks. **Price, \$10.50.**



INTERNATIONAL PORTABLE—The great, distinctive features of the Sanitary Hover are that it is warmest at the curtain, and that the center, being occupied by the lamp holder, is not available for the chicks to crowd in.

The International Sanitary Hover is the one perfect hover. The heat in it is not conducted through pipes and discharged at the center, but radiates downward from a ceiling warmest at the curtain.

Chicks hovered under the Sanitary Hover not only have no incentive to crowd to the center, but really have no center to crowd to.

To get at the lamp, just lift it out. To move the hover, just pick it up. To set up the hover, just set it down. **Price, \$10.00.**

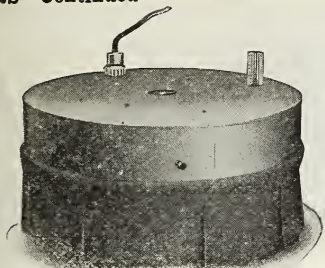
CYPHERS COAL-BURNING COLONY HOVER

The latest development in the brooding of chicks. Will brood from 300 to 1,000 chicks in one flock, thereby reducing to the lowest point the time, labor and cost of raising fowls. Has cast iron fire pot and ash pit. Galvanized iron, conical hover dome is movable up and down. Automatic regulator controls heat; only two coalings per day required. Easy and as safe to operate as kitchen range.

PRICES

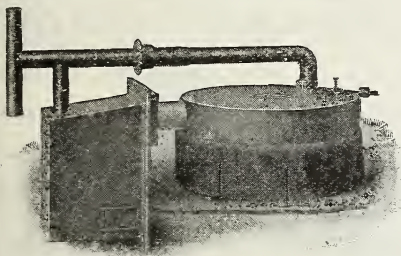
Outfit No. 1 —With small heater and 42-inch dome, without automatic regular; shipping weight 150 lbs.; capacity, 300 to 600 chicks.....	\$25.00
Outfit No. 2 —Same as outfit No. 1, except has automatic regulator.....	\$30.00
Outfit No. 3 —With small heater and 60-inch dome, without automatic regular; shipping weight 170 lbs.; capacity 600 to 1000 chicks.....	\$32.00
Outfit No. 4 —Same as Outfit No. 3, except has automatic regular.....	\$37.00
Outfit No. 5 —With large heater and 42-inch dome, without automatic regular; shipping weight 160 lbs.; capacity 300 to 600 chicks.....	\$27.50
Outfit No. 6 —Same as Outfit No. 5, except has automatic regular.....	\$32.50
Outfit No. 7 —With large heater and 60-inch dome, without automatic regular; shipping weight 180 lbs.; capacity 600 to 1000 chicks.....	\$35.50
Outfit No. 8 —Same as Outfit No. 7, except has automatic regular.....	\$39.50

HOVERS—Continued



CYPHERS ELECTROHOVER—This Hover is "portable," uses the floor of the apartment or brooder case as the brooding floor and is "adaptable" to almost any location. It can be inserted in any one of the Cyphers Outdoor Brooders (Styles A, B or C) or in any ordinary brooder of suitable size, either indoor or outdoor, or can be used independently. Is fire-proof throughout and bears the official inspection label of the associated fire insurance companies. Capacity, 75 newly hatched chicks. **Price, \$13.00.**

Not carried in stock but will secure this on short notice.

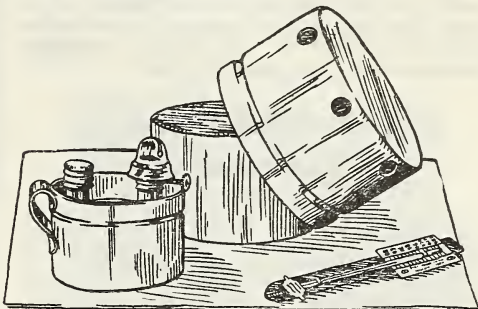


The Cyphers Adaptable Hover is self-ventilating and self-regulating. It supplies a continuous flow of **fresh, pure, warmed** air under the hover, and at the same time maintains a steady, uniform heat. It is "adaptable" to use in Colony Coops, in portable houses, in home-made brooder coops, such as goods

boxes, piano boxes, and organ cases, as well as in large brooding houses. It is constructed entirely of non-combustible material. Capacity, seventy-five newly hatch chicks. **Price, \$10.50.**

Common Sense Brooder Fixtures

To those who wish to make their own brooders, we highly recommend the "Common Sense" Brooder Fixtures. These fixtures include an upper and lower drum, Inland Safety Lamp and Thermometer. The construction of the brooder is simple and the air circulation perfect. For outdoor use the walls should be double and the roof included and covered with roofing.



Top Removed, Showing Location of Hover and Heat Retainer

Manner of Construction—First, put in a tight floor 9½ inches from the bottom of brooder. Then mark and saw out size of large drum on this floor (using drum as pattern), 12 inches from center of side of brooder to center of drum. Secure drum in place, then nail one-inch cleats two feet square under and around the drum, cutting out a two-inch hole from cleat and side of brooder to allow air circulation. Nail the lower drum up on these cleats. Bore sufficient holes through two sides of brooder, under this floor, to carry off fumes and furnish air for lamp. For the hover nail thin boards together, making it two feet square. Around this tack oilcloth wide enough to reach floor when hover rests on drum. Set the lamp under center of drum. **Price, \$3.50.**

EXTRAS FOR CYPHERS INCUBATORS

Connecting Rods

For No. 0. **Price, 25c; postpaid, 30c.**

For No. 1, 2 or 3. **Price, 30c; postpaid, 35c.**

Discs (tin) and wire. 15c each; postpaid, 20c.

State size of incubator.

Egg Trays, Pedigree

Pedigree Trays are in demand by poultry raisers who use trap nests of various kinds for special breeding purposes. They are a valuable aid to systematic, scientific poultry breeding. By their use the eggs placed in a No. 0 or No. 1 Standard Cyphers Incubator can be kept in four separate lots; also the chicks that hatch therefrom, and the eggs in a No. 2 or No. 3 Standard Cyphers can be kept in eight separate lots, also the chicks that hatch therefrom.

Price, each, for No. 1	-----	\$3.25
Price, each, for No. 2	-----	3.50
Price, each, for No. 3	-----	3.75

Felts

For No. 1, each	-----	\$0.50
For No. 2, pair	-----	.75
For No. 3, pair	-----	1.00

Postpaid, 10c additional.

Arms, Wooden

For No. 0, 1, 2 or 3. **Price, 25c; postpaid, 35c.**

These arms are all forwarded extra long; customers cut to fit machine.

Flame Reducers

Each, 30c; postpaid, 35c.

State size of machine.

Heaters

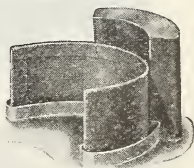
No. 0	-----	\$2.75
No. 1, 2 or 3	-----	\$3.00

Lamp not included.

Mailing weight No. 0, 10 lbs; No. 1, 2 and 3, 15 lbs; add postage.

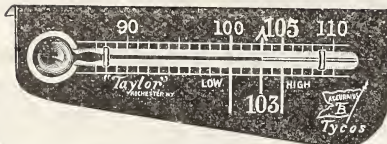
Moisture Device

Cyphers Incubators are know the world over as non-moisture machines, where the surrounding atmosphere is in its normal condition. There are, however, exceptional conditions, existing in arid districts and in high altitudes of mountainous regions. The device is placed on the air chamber of the heater. **Price, \$1.75; postpaid, \$1.85.**



WHEN ORDERING MAILABLE GOODS DO NOT FORGET TO ADD POSTAGE

Thermometers



The best incubators and brooders manufactured are worthless unless the thermometers therein are correct. The thermometers here listed are guaranteed by the manufacturers to be thoroughly and expertly tested before they are offered to the public. **Incubator Thermometers, 75c; postpaid, 80c.**

"Tycos" Certified Incubator

Thermometers

With scale etched on the glass tube, so that, should the tube from any cause work loose on the mounting, the efficiency of the thermometer would not in any manner be diminished. Made in mercury tube only. **Each, \$1.00; postpaid, \$1.05.**

Thermostats

For No. 0.....\$1.65
For No. 1, 2, or 3.....2.15

Add 10c for postage.

EXTRAS FOR CYPHERS BROODERS

Mirrors

Each.....10c

EXTRAS FOR CYPHERS HOVERS

Arms, Wire

Each, 50c; postpaid, 60c.

Connecting Rod

Each, 25c; postpaid, 30c.

Disc and Wire

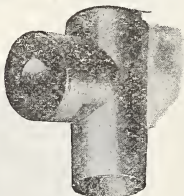
Each, 15c; postpaid, 20c.

Felts

Each, 60c; postpaid, 70c.

Thermometers

Each, 60c; postpaid, 65c.



X-Ray Egg Tester

X-Ray Egg Tester is made with a central cylinder, 5¼ inches high, with an outside diameter of 2½ inches at the base and 2¼ inches at the top. It is designed for use on an ordinary hand lamp. In a dark room the light will be strong enough to penetrate the shell and illuminate the interior of the egg. **Price, 25c; postpaid, 30c.**



LAMPS

The Inland Safety Brooder Lamp requires no chimney; never smokes, and burns a steady flame. The air fingers carry fresh air direct to the flame. This gives perfect combustion and more heat for a given amount of oil than with any other burner. Weight, 1¼ lbs. **Price, \$1.00; postpaid, \$1.10.**

Lamp complete for No. 0 Cyphers Incubator, **\$1.00; postpaid, \$1.10.**

Lamp complete for Nos. 1, 2 and 3, for Cyphers Incubator, **\$1.10; postpaid, \$1.20.**

Incubator Lamp, No. 3, burner 3¼ inch diameter, 1½ inch wick. **Price, \$1.10; postpaid, \$1.20.**

Incubator Lamp, No. 2, burner 2½ inches diameter, 1 inch wick. **Price, \$1.00; postpaid, \$1.10.**

Brooder Lamp, No. 3, burner 3¼ inches diameter, 1½ inch wick, chimney 3¼ inches by 7 inches. **Price, \$1.40; postpaid, \$1.50.**

Brooder Lamp, No. 2, burner 2½ inch diameter, 1 inch wick, chimney 2½x6 inches. **Price, \$1.25; postpaid, \$1.35.**

Brooder Lamp, No. 32, burner, chimney 3¼x3¼ inches, wick 1 inch. **Price, \$1.00; postpaid, \$1.10.**

Bowls

For Incubator or Brooder to take No. 3 burner. **Price, 65c; postpaid, 75c.**

For Incubator or Brooder to take No. 2 burner. **Price, 65c; postpaid, 75c.**

Burners

No. 2 for No. 0 and No. 1 Cyphers Incubators. **Price, 35c; postpaid, 40c.**

No. 3 for No. 2 and No. 3 Cyphers Incubators. **Price, 45c; postpaid, 50c.**

No. 1 Zenith no chimney, ¾ inch wick. **Price, 45c; postpaid, 50c.**

No. 2 Zenith, no chimney, 1 inch wick. **Price, 50c; postpaid, 55c.**

No. 32, 3¼ inch chimney, 1 inch wick. **Price, 45c; postpaid, 50c.**

Chimneys

Chimneys for No. 2 burners. **Price, 25c; postpaid, 30c.**

Chimneys for No. 3 burners. **Price, 30c; postpaid, 35c.**

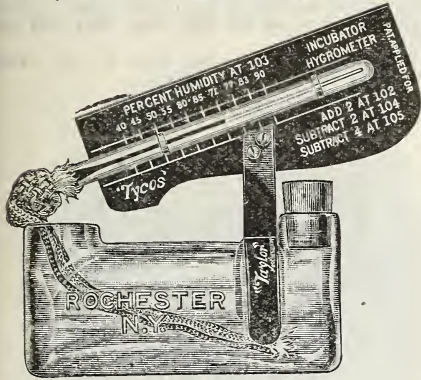
Chimney, 3¼x3¼ inches, for No. 32 burner. **Price, 30c; postpaid, 35c.**

Collars

For No. 3 and No. 2 burners, **10c each.**

Wicks

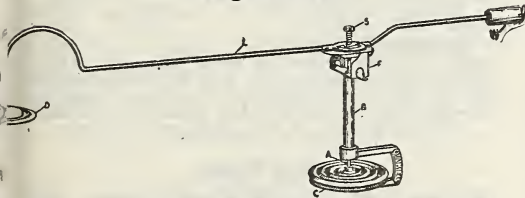
No. 1, 20c per doz.; No. 2, 20c per doz. No. 3, 25c per doz.; all postpaid.

"Tycos" Incubator Hygrometer

Millions of chicks die in the shell every year for the want of proper moisture conditions. The "Tycos" Incubator Hygrometer is not a regulator of moisture, but is an indicator of conditions, so that if not correct, they may be made so. Each, \$1.50; postpaid, \$1.60. Hygrometer Wicks, each, 15c.

The Reliable Pedigree Nest Box

The best and most successful breeders in the country are at present following the pedigree plan and using automatic nest boxes of some kind. They can be used either for pedigreeing the stock or as an ordinary nest box. Weight, 23 lbs. Price, \$3.00; add postage.

Regulators

In this Regulator the water is inverted and as it expands it acts through the short lever beneath it on the connecting rod, and the down pull of the connecting rod so moves the top lever as to lift the damper. Accurate adjustment is secured through the adjustment nut and the upper end of the connecting rod. Weight, 12 oz. Price, \$1.50.

Wafer Thermostat

The Wafer Thermostat is made of two round concave discs, sealed together at the outer edge. The cavity between them is filled with a volatile liquid which is very sensitive to changes in temperature. Price, postpaid, 50c.

DO NOT FORGET TO ADD POSTAGE

Champion Leg Band

The oldest and most popular band on the market. This band is made in one piece in two sizes, adjustable to fit any fowl. They will stay where you put them. Held by double lock, it is impossible for them to lose off. Made of aluminum in two sizes, large size for Asiatic class and turkeys; small size for Plymouth Rocks and all smaller breeds. Postpaid, 12, 15c; 25, 30c; 50, 50c; 100, 80c.

Aluminum Pigeon Bands

Pigeon bands are seamless and open, with numbers. 12, 20c; 25, 35c; 50, 60c; 100, \$1.00; postpaid.

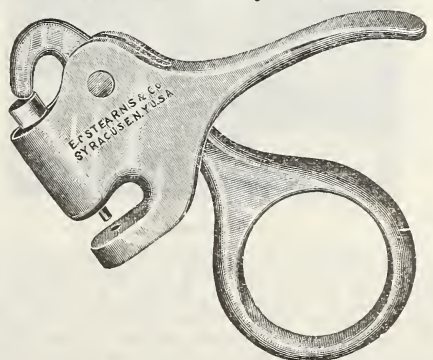
Caponizing Set

There is no doubt in the minds of up-to-date poultrymen as to the advantages of caponizing. The operation is simple, with a "Triumph Caponizing Set." Capons sell on the market at a higher price than any other chickens. Get into the caponizing business, and the first thing to start right is to buy a "Triumph Caponizing Set." No more efficient, simple or more easily operated set is being offered the craft today than the Triumph.

In plush-lined, cloth covered box, \$3.00; postpaid --- \$3.10
In polished hardwood box, \$2.75; postpaid. 2.85
In japanned wood box, \$2.50; postpaid --- \$2.60

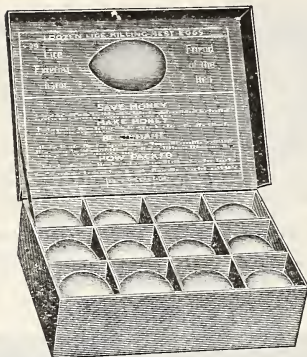
Petty's Poultry Punch

Latest, most convenient Poultry Punch; will not clog. Thoroughly practical. Postpaid, 25c.

Stearn's Poultry Punch

This little tool is for marking poultry by punching through the web between the toes. It is light and handy to carry in the pocket. Nickel plated. 35c, postpaid.

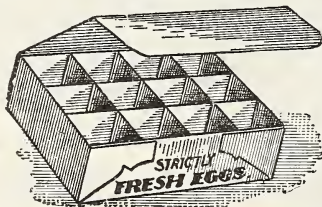
Nest Eggs



Medicated—Should be used the year around.

Directions for Use—Don't expect one egg to rid your poultry and poultry house of lice. To realize the best results keep an egg in each nest for laying hens; in each coop for brooding hens and chicks, and enough to change about under setting hens. Weight, per doz., 3 lbs. Each, 5c; doz., 50c; add postage.

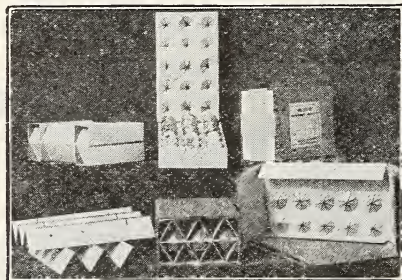
Lime—The popularity of the Lime Nest Egg has spread across the country like a great storm wave sweeping the continent. Not only the poultry fancier, but the every day farmer appreciates its merits and superiority over the ordinary porcelain nest eggs. They look



Paper—Intended for use in delivering eggs to private families. If you have a select egg trade you should use this box.

Square—Doz., 15c; package of 125, \$1.25; 500, \$4.50; 1000, \$8.50; add postage. Weight of 125, 15 lbs.

Long—Doz., 25c; package of 125, \$1.75; 500, \$6.00; 1000, \$11.00; add postage. Weight of 125, 15 lbs.



Diamond

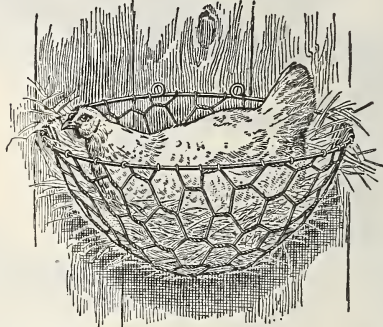
The Diamond Egg Carrier is something entirely new and in a class by itself. The construction is simplicity itself. The eggs do not come in contact with the outer box, having a cushion on all sides and when wrapped in tissue paper, which always accompanies each package, there is absolutely no jar, thus insuring safe transportation to a customer.

Made in 15-, 30- and 25-egg sizes. For 50, 75 and 100 eggs use 2, 3, or 4 of the 25-egg size. With each package and enclosed therein

like a real egg. The porcelain egg becomes so cold in winter that a hen will not sit upon it but scratch it out of the nest. Weight, 2 lbs. per doz. 3 for 10c; doz., 30c; add postage.

Porcelain—Weight per doz., 2 lbs. Price, doz., 30c; add postage.

Wire Nests



These nests are strongly made from heavy jappaned steel wire. They are intended to be fastened to the wall with screws or screw hooks. There is no room on them for lodgment of lice or vermin or any kind; they are easy to keep clean and are far superior to wooden boxes. Each, 20c; per dozen, \$1.50; add postage. Weight, each, 12 oz.

EGG BOXES

are full directions for setting up gummed address labels, tissue paper with which to wrap the eggs and gummed paper with which to seal the box.

Price, 15-egg size—15c each, 6 for 80c; doz., \$1.50.

Price, 25-egg size—20c each, 6 for \$1.10; doz., \$2.00.

Price, 30-egg size—25c each, 6 for \$1.35; doz., \$2.50.

Price, 12-egg size, duck—15c each, 6 for 80c; doz., \$1.50.

Price, 12-egg size, turkey—15c each, 6 for 80c; doz., \$1.50.

Price, 9-egg size, goose—15c each, 6 for 80c; doz., \$1.50.

Parcel Post egg boxes, 15c each, 6 for 75c; doz., \$1.25. Capacity, 12 eggs.

Mailing weight of all egg boxes, 2 lbs. each; add postage.

ANDERSON—Made of heavy corrugated paper. These boxes are light, but very strong, being firmly braced, and will stand the weight of several hundred pounds without crushing. 30-egg size, 25c each, 6 for \$1.25; doz., \$2.25.

Mailing weight, 2 lbs. each; add postage.

Egg Cases

30-dozen case, with pasteboard fillers...\$0.50

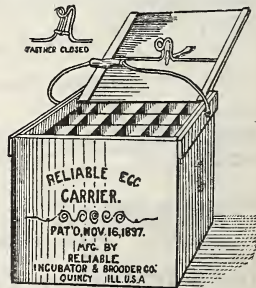
Pasteboard fillers for 30-dozen case... .25

Pasteboard fillers, per case (for 15 30-dozen cases)..... 1.85

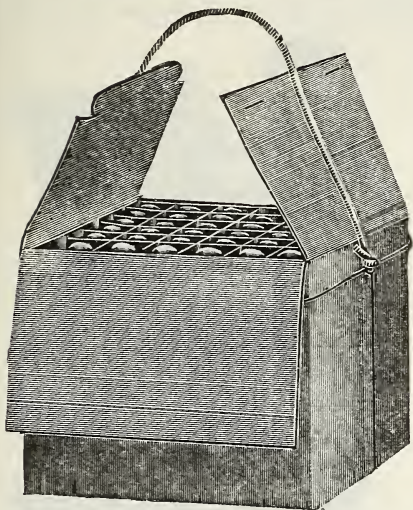
Cases, K. D., each, 25c; ½ doz., \$1.25; doz., \$2.25.

Reliable
Egg Carrier

Nicely painted; equipped with the very best fillers. Patented top and sling handle. Holds 12 dozen. Weight, 8½ lbs. Each, 75c; add postage.



The Defiance Egg Carrier



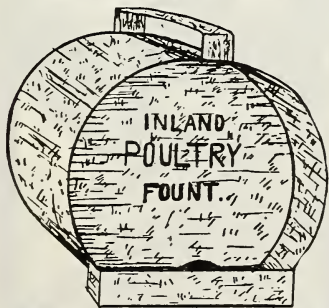
Holds 12 dozen eggs. It consists of one piece of heavy cardboard, and when set up ready for use is 12 inches long, 12 inches wide and 9½ inches high. Weight, including fillers and division boards, 6 lbs. Each, 25c; add postage.

Inland Feed and Shell Box



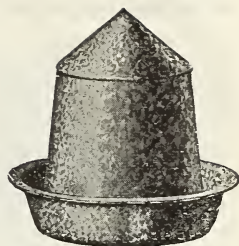
The Inland Sanitary Feed and Shell Boxes work a material saving in grit, shell, bone, charcoal or poultry feeds. They are thoroughly practical, self-feeding, made of heavy galvanized iron. They are provided with a cover or lid, which protects the contents, and being placed at an angle furnishes a slanting top, preventing the fowls from roosting on the top of the box. Price, two compartment, 90c; three compartment, 90c; wt., 3 lbs. Price, four compartment, \$1.00; weight, 4 lbs.

Drinking Fountains

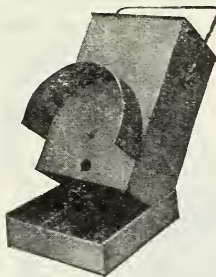


Inland Poultry Fountain—The back is flattened so that it can be hung on the wall or against an upright post or board at any height. As the bottom is also flat, it can be set upon the ground or on a raised board. Price, 1 gal., 75c; 2 gal., 90c. Weight, 1 gal., 3 lbs. Weight, 2 gal., 4 lbs. Add postage.

The Galvanized Iron Drinking Fountains embody every good feature of an up-to-date drinking fountain, and are believed to be the best in use. A fountain that can be easily and readily cleaned is desirable and necessary. These fountains are easily filled, easily cleaned. Qt., 25c; postpaid, 30c.



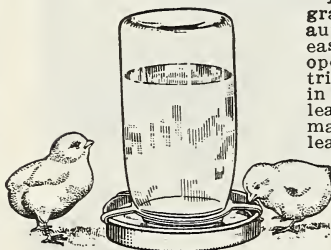
Drop Bottom Founts



28-gauge galvanized steel. Easiest thing in the world to open and clean. Clasp by which the bottom is fastened fits over the small hole under the hood, preventing slopping of water when the fount is handled. Solid brass hinge rod—no rust.

Gal., 85c; weight, 3 lbs. 2 gal., \$1.00; weight, 4 lbs.; add postage.

Automatic Fountain and Feeder



Feeds water, grain, grit, etc., automatically. Is easy to fill and operate. Just lift trigger, as shown in cut, which releases pan, clip remaining on jar, leaving pan without any obstruction, affording easy cleaning. Thus a sanitary fountain.

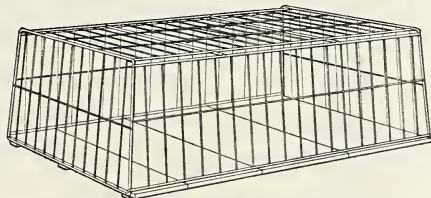
Made to fit any half gallon, quart or pint Mason jar. We do not furnish jars.

Each, 15c; ½ doz., 75c; 1 doz., \$1.25. Weight, per doz., 4 lbs.; add postage.

Shipping Coops

INLAND—All wood, neat, very light, but strong. Poultry raisers selling poultry at fancy prices should always use these coops.

No. 1—10x18x18, 30c; ¼ doz., \$1.50; doz., \$2.75. No. 2—12x24x20, 40c; ¼ doz., \$2.00; doz., \$3.75. No. 3—20x24x20, 50c; ½ doz., \$2.50; doz., \$4.50.



This steel coop will outlast three wood crates and will save its cost each season in repairs and transportation charges.

It is made of galvanized steel bars and wire, and will not rust.

It is sanitary, as there are no holes or crevices in which vermin can breed.

It has a narrow mesh on top, which eliminates the possibility of the poultry poking their heads through and being killed.

Weights but 24 pounds, and never gets heavier with moisture.

It is built on a taper, so that the coops will

SHIPPING COOPS—Continued

slide into each other, after removing the bottom. This feature is a great advantage, as the coop is not weakened by making it collapsible. The bottoms are easily and quickly detached. Size, 27x41x13 inches high. Price, \$2.75.

Shipping Boxes for Day-Old Chicks

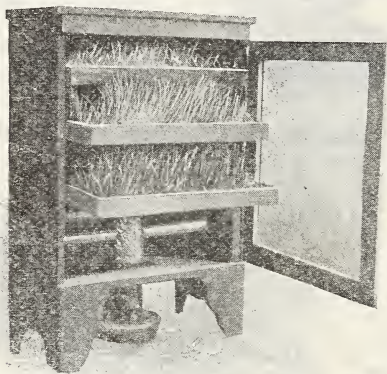
These shipping boxes are well made of highest corrugated paper, which is very strong and durable. The construction of these boxes is such as to afford the greatest strength and stiffness, without unnecessary bulk of weight.

25-Chick size, 20c each; ½ doz., \$1.00; doz., \$1.75.

50-Chick size, 30c each; ½ doz., \$1.50; doz., \$2.50.

Weight, per dozen boxes: 25-chick size, 7 lbs.

Weight, per dozen boxes: 50-chick size, 15 lbs.

Reliable Grain and Oat Sprouter

Poultry needs green feed in one form or another. All experiments by individuals and agricultural colleges have found that oat sprouts are the best green feed that can be obtained for poultry.

You want the eggs when the egg sell at the highest price. Green feed makes your hens lay.

The Reliable Grain and Oat Sprouter has an automatic sprinkler, which furnishes moisture.

Has a Moisture Receptacle, which catches the surplus drip.

Has circulation of warm air which passes all around and over each tray.

Has a regular oil heater to furnish sufficient warm air in coldest weather.

Is made of galvanized iron with large glass front.

Three trays will furnish sprouts for 50 to 75 fowls. Price, \$10.00.

Twelve trays will furnish sprouts for 200 to 300 fowls. Price, \$25.00.

Banner Root Cutters

These excellent machines are so low in price that every farmer, stock raiser or poultry man should have one, as roots are the cheapest green feed for stock and poultry.

The Banner is substantially made of first class material.

It cuts fast and is easy running. Leaves the feed in fine ribbon-like strips that make choking impossible. Fowls large or small can safely eat the feed. The knives are adjustable and made of the very best of steel. An iron grate in bottom of hopper lets dirt and gravel escape before reaching the knives. In

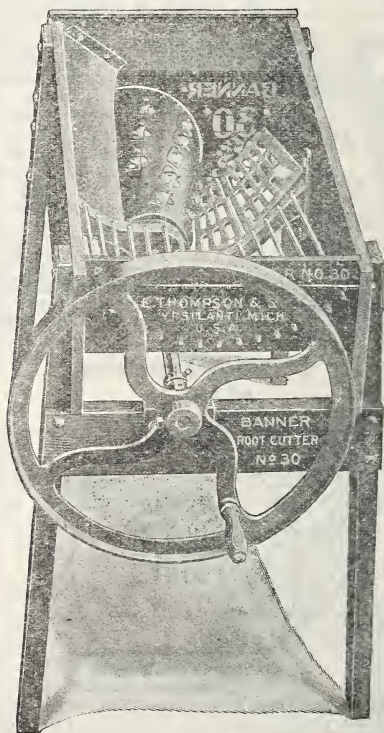
this cutter we offer the poultrymen a low priced, high grade, nicely finished and mechanically constructed machine, and feel that anyone who desires to feed roots and vege-

**No. 7**

tables to their flocks can well afford to own one. Two to five minutes will cut enough feed for a large flock of fowls.

Price, \$5.50.

Weight, 50 lbs. Extra knives, 35c each.

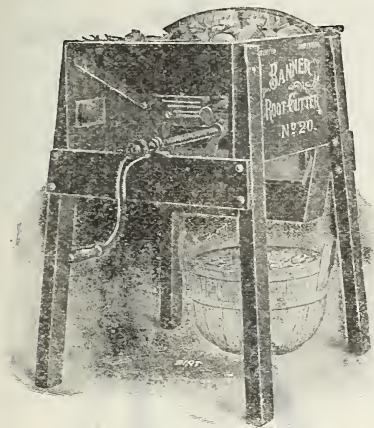
**No. 30**

A glance at the cut of No. 30 shows the large capacity of the hopper, 39 inches long, 18 inches wide and 18 inches deep at the low-

BANNER ROOT CUTTERS—Continued

er or cutting end. The long drum with 30 knives attached. The gravity slant of the inside of the hopper. The open bottom with iron rods and open cutting grate allows dirt to escape without mixing with the cut feed.

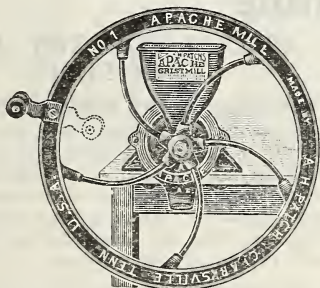
Capacity, $1\frac{1}{2}$ to 2 bushels per minute. **Price, \$22.50. Weight, 190 lbs.**

**No. 20**

No. 20 is made for hand power and is the kind and style that meets with the largest sale, because most of the farmers who feed roots to stock want a machine that is run by hand. It has a capacity of 30 to 50 bushels per hour.

It is well built, nicely finished, runs easily, feeds itself, separates the dirt from the cut feed, and is supplied with the best steel knives. **Price, \$13.50; weight, 120 lbs. Extra knives, per set of 20, \$1.75.**

MANN'S NO. 7½—Adapted to run either by hand or by power, without any change. The particular advantage of the No. 7½ is that while it is a complete power machine, it can be operated by hand just as easily as the No. 7. **Price, \$21.50.**

Apache Mill

Grinding plates can be taken out easily for cleaning or replacing.

The handle can be set in two positions as shown, making a longer or shorter leverage as desired.

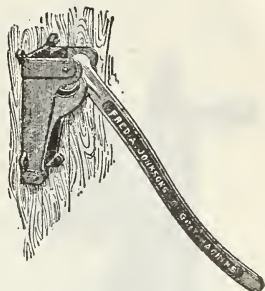
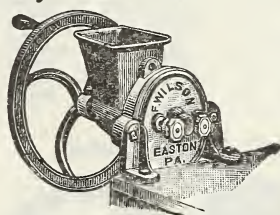
The light steel spokes make it possible to wear practically all the weight of the fly wheel in the outer rim.

The Apache grinds all dry grains such as corn, wheat, rye, rice, coffee, spices, etc. Makes corn meal, hominy, chops, breakfast foods, etc. It will grind a quart of table meal in two minutes.

Large hopper, ball bearing. **Price, \$5.00.**

JOHNSON'S GRIT MACHINE

The Johnson Grit Machine, easiest and best machine on the market, has compound leverage and is very powerful. Will break rock, limestone, crockery, glass and shell. **Price, \$4.25.**

**The Wilson Dry Bone Mill**

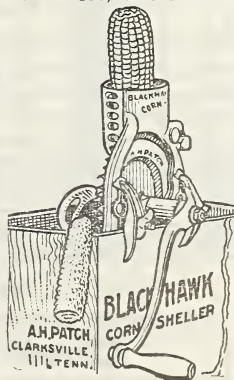
No. 1 is a practical mill, grinding all kinds of shells, crockery, grit, burnt or dry bone feed, etc. Instantly adjusted to grind coarse or fine. Weighs 33 pounds. Diameter of hand wheel, 20 inches. **Price, \$5.00.**

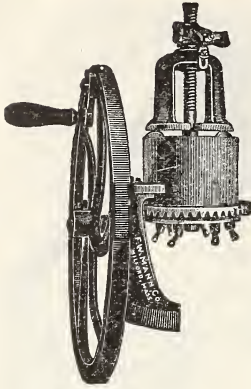
Black Hawk Mill

WITH A BLACK HAWK MILL in the house you crack the corn and grind any kind of grain to whatever degree of fineness you desire or whichever will best suit the use or condition of your chickens. Its wide range of usefulness, its durability and small cost will appeal to the family in town with a small flock in the back yard, and it has a large enough capacity to meet the needs of those in the country who keep poultry on a big scale. Weight, 16 lbs. **Price, \$3.00.**

BLACK HAWK CORN SHELDER**A Sheller That Shells**

It can be set to shell any corn that grows. Made with ball-bearings, obviating the expense of a heavy balance wheel. Easily fastened to box by thumbscrews—no bolts nor screws required—no holes to be bored. Weight, 14 lbs. **Price, \$2.50.**

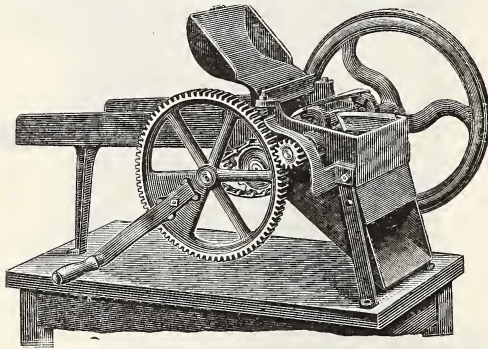


Mann's Green Bone Cutter

No. 5 B.

MANN'S NO. 5 B—Has four knives, large cylinder, and has the latest patent (automatic governing spring feed), which makes it one of the best. Price, \$10.50.

NO. 5 B. M.—Mounted on iron stand, no expense to set it up. Place for pan to catch the bone. Patented automatic governing spring feed. Cylinder, 6 inches diameter, 4 inches deep. Cutter plate has four knives. Will cut faster and easier than other types. Price, \$14.00.

"New Model" Clover Cutter

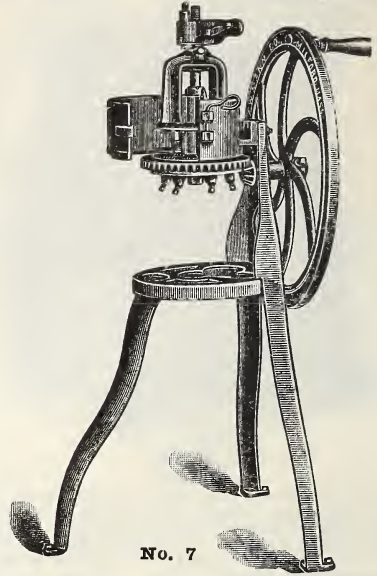
The "New Model" Clover Cutter is designed for cutting either green or dry, such growths as clover, alfalfa, vegetable tops, etc. These growths are the cheapest feed that can be secured.

The "New Model" is made only of iron and

steel, from entirely new patterns. It is a strong feeder, has large capacity, runs unusually easy and will do perfect work indefinitely. Has removable and adjustable steel knives.

Price, with four 7-inch knives, \$10.50.

Price, with extended shaft and pulley for power, \$13.00.

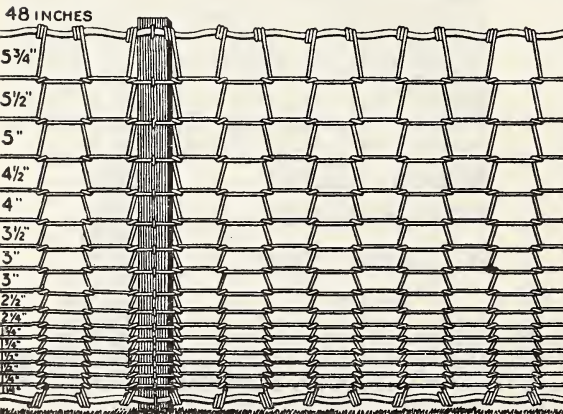


No. 7

MANN'S NO. 7—The new No. 7 is mounted on strong iron stand, and has patent automatic governing spring feed. Large, opening cylinder, giving instant access to all working parts; has six knives, gear guard, anticlog device, heavy balance wheel. Price, \$15.50.

Eocene Oil

Best for incubators and brooders. Write for prices.

Poultry Netting

Special Poultry and Stock Fence

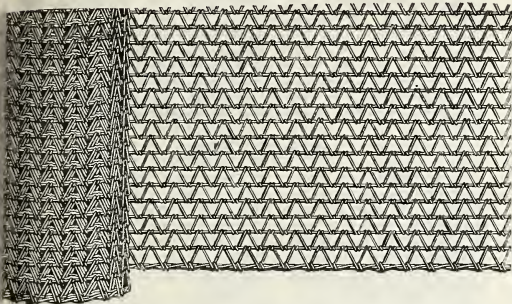
SPECIAL POULTRY AND STOCK FENCE**Made in 48 and 60-Inch Heights**

To meet the demand for a fence suited for poultry and stock this special fencing has been put on the market, and it is particularly adapted for such general purposes. It is scientifically constructed from the best material, heavily and thoroughly galvanized.

The illustration shows that the stays are in one piece running continuously from bottom to top, and that they are interwoven, so as to render it impossible to slip or spread the wires in any way. This makes the best as well as the strongest combination possible to be produced from the same amount of wire.

Price, 48-inch, 20 rods to the roll, \$12.00.
Price, 60-inch, 20 rods to the roll, \$13.00.

Clover Leaf Fertilizer---It Produces Results

POULTRY NETTING—Continued**U. S.**

The U. S. Poultry Wire combines strength, durability and neatness of appearance. It is flexible, and readily adjusts itself to uneven surfaces without buckling. Stretches in firm, straight lines without rail supports, requires few posts and no top or bottom rail is required to keep the fence from sagging or narrowing together between the posts. Bear in mind that the bars in the "U. S." fencing are only two inches apart. Put up in rolls containing 150 lineal feet.

PRICES**TWO-INCH MESH**

12-inches high, per roll of 150 feet,	\$1.05.
24 inches high, per roll of 150 feet,	\$2.10.
36 inches high, per roll of 150 feet,	\$3.15.
48 inches high, per roll of 150 feet,	\$4.20.
60 inches high, per roll of 150 feet,	\$5.25.
72 inches high, per roll of 150 feet,	\$6.30.

Five roll lots, either straight or assorted, 12½ per cent less.

ONE-INCH MESH

12 inches high, per roll of 150 feet,	\$2.15.
18 inches high, per roll of 150 feet,	\$3.25.
24 inches high, per roll of 150 feet,	\$4.30.
30 inches high, per roll of 150 feet,	\$5.40.
36 inches high, per roll of 150 feet,	\$6.45.

M. M. S.

The M. M. S. wire being only one inch apart at the bottom requires no board to prevent little chicks passing through. Also saves buying expensive one-inch mesh wire.

60 inches high, 165 feet long, per roll, \$5.50; 5 roll lots, \$5.25.

72 inches high, 165 feet long, per roll, \$6.50; 5 roll lots, \$6.25.

The prices here quoted are the lowest possible price at the time of going to press, but owing to the ever advancing prices these are not guaranteed, therefore, suggest that you write for quotations so that your order may not be delayed in shipping.

Roofing

Roofing is manufactured from a high-grade wool felt which is thoroughly saturated and coated with asphalt. It is fire-resisting, water proof and weather proof, and will last for

a great many years. It is easy and quick to lay; can be used with equal success on a temporary shed, drykilo, mill or factory roof, modern office building or wherever a good material is required for a flat roof. Nails and cement are enclosed in each roll; made in different qualities.

1-ply, 34 lbs., per roll, \$2.00; 5 rolls, \$9.50.
2-ply, 44 lbs., per roll, \$2.50; 5 rolls, \$12.00.
3-ply, 54 lbs., per roll, \$3.25; 5 rolls, \$15.50.

Ask for prices.

One roll covers 100 square feet.

Poultry Feeds

In the days gone by it used to be considered that anything was good enough to be fed to poultry. The poultry business of today is being rapidly conducted on a truly scientific basis. There are three great essentials to success in the poultry business. Stock, Care, Feed. The success of the poultry man will depend upon the care and attention given to these three points. We are not supplying stock, and cannot give care, but we can and are supplying feed.

The different kinds of feed manufactured by us are put up under our Clover Leaf Brand, each bag bearing our name and a large green four leaved clover. These are not put up haphazard, but are always put up under the same formula regardless of the varying prices of the different grains and ingredients.

Advantages of using the Clover Leaf Brand, Uniformity, Dependability, Purity, Cleanliness, Results.

Clover Leaf Chick Feed



The experience of poultry raisers is the same the world over, and that is that it is easier to hatch young chicks than it is to raise them. By using Clover Leaf Chick Feed you can give the chicks just what nature intended they should have, a food composed of grains, small seeds, grit, bone, dried sweet meat (to take the place of insects and bugs), charcoal, etc., mixed in the right proportion to produce a quick and profitable growth without loss. 50 lbs., \$1.50; 100 lbs., \$2.75.

ed in the right proportion to produce a quick and profitable growth without loss. 50 lbs., \$1.50; 100 lbs., \$2.75.

Clover Leaf Forcing Feed, as its name implies, is specially intended for properly maturing young chicks after they are ready to be weaned from chick feed. When the chicks are from six to eight weeks old they are able to eat larger particles of grain than are found in our chick feed.

Our Forcing Feed contains a variety of grain in sizes and quantities exactly suited to the purpose for which it is intended. 50 lbs., \$1.50; 100 lbs., \$2.75.

**Our Poultry Feeds
are the best you can buy**

Clover Leaf Scratch Feed

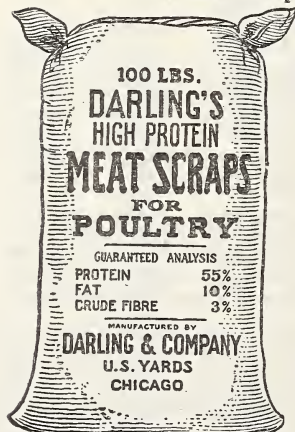
This is a balanced ration, composed of the choicest grains, and other ingredients in just the correct proportions that several years of experience has demonstrated is right. Every practical poultry man will readily concede the great advantage of feeding such a mixture. Price, per 100 lbs., \$2.25.

Clover Leaf Balanced Ration

This is a complete ground feed. It contains all the ingredients necessary to promote quick growth, to produce eggs and to keep the birds in a good condition. We have thoroughly studied the subject of feed for fowls and know this mixture will give you the desired results. Clover Leaf Balanced Ration costs only a little more than either wheat or corn and is of twice the value. 80-lb. bag, \$1.75.



Can be fed dry or in a mash.

Beef Scraps

The object in buying Beef Scraps or Meat Meal is to obtain the largest amount of digestible protein possible. Beef Scraps contain from 55 to 65 per cent of protein, 10 to 12 per cent of fat and less than 5 per cent of ash.

Darling's, 100 lbs., \$4.00.

Armour's, 100 lbs., \$3.75.

Darling's Meat Crisps, packed in cartons, specially prepared, and of especial

ly high grade, carrying 75 per cent protein. 30c; mailing weight, 2 lbs.; add postage.

Armour's Meat Meal—Contains from 50 to 65 per cent of protein, 10 to 12 per cent of fat and less than 5 per cent of ash. Pure, clean, sweet and wholesome. Will keep indefinitely if stored in a dry place. 100 lbs., \$3.75.

Blood Meal

One great reason why hens do not lay in winter is because they are not supplied the proper elements to produce the yolk of an egg. This can be remedied by the use of Dried Blood or Beef Scraps. Blood is the highest concentrated form of animal food and prepared so as to include all the elements of the so-called Red Albumen. Use only tablespoonful to six hens once a day. Standard, 100 lbs., \$2.75; Armour's Granulated, 100 lbs., \$5.00.

Alfalfa Meal

The value of some green feed for fowls can hardly be overestimated. For a winter feed alfalfa is one of the best for this purpose. It contains more protein, lime, and mineral salts in soluble and digestive form than clover, and fowls relish it in either a green or dry state. For producing eggs in winter it has no equal. 100 lbs., \$1.50.

Alfalfa Leaves and Blossoms—This is much superior to the ordinary Alfalfa Meal, as it does not contain the stocks, only the leaves and blossoms. 25 lbs., 50c; 50 lbs., \$1.00.

Granite Crystal Grit

The sharpest and hardest grit known. Free from dust. Rich in iron, silica, aluminum and mica. Each crystal has sharp edges, which cut and grind, and grind and cut until the last minute particle is worn away. In ordering state whether you want chick, medium or poultry size. 100 lbs., \$1.00.

**Granulated Charcoal**

Our Granulated Charcoal is not ordinary commercial charcoal, but is especially prepared for poultry. It aids digestion, purifies the blood, regulates the bowels and promotes the general good health of the chicks and adult fowls. Fine granulated, for all mash rations and for small chicks and a coarser granulated for adult fowls. 50-lb. sacks, \$1.50; 100-lb., \$3.00.

SHELL

The feeding of shells to poultry prevents soft shelled eggs, makes the shells strong, and eggs larger and heavier.

Western Shell, per bag, screened, \$1.15.

Eastern Oyster Shell, per bag, \$1.30.

Fancy Eastern Oyster Shell, per bag, \$1.50.

Granulated Bone

Many poultrymen prefer granulated bone to fresh or green bone. Fresh bone contains 53 per cent of moisture and 12 per cent of grease, so that when a poultry man buys fresh bones he pays for 65 pounds of useless materials in every 100 pounds he buys. Granulated Bone is made from fresh bones with the moisture and grease taken out, leaving nothing but the phosphate of lime and nitrogen. 100 lbs., \$2.50.

**WHEN ORDERING MAILABLE GOODS
DO NOT FORGET TO ADD POSTAGE**

Poultry Tonics

Gold Coin



POULTRY TONIC—It prevents poultry diseases, and saves feed. It is not what your poultry eat, but what they digest and turn into flesh and production of eggs that makes money for you.

25c, 50c and \$1.00 packages; 12½ lb. pails, \$2.00; 25 lb. pails, \$3.50. Mailing weights, 2 lbs., 4 lbs., 7 lbs., 17 lbs., 30 lbs.; add postage.

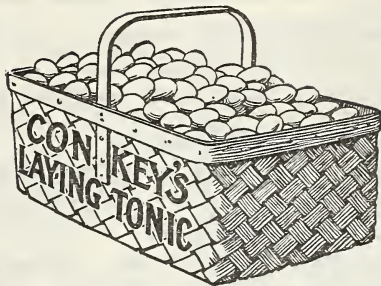
Poultry Pepper Compound

This is a splendid tonic at all times. A small amount sprinkled in with a hot mash will stimulate the circulation and increase egg production. Pkg., 25c; 5 lbs., \$1.00; add postage.

Copperas

A small piece placed in drinking water is a good tonic for chickens. Lb., 10c; add postage.

Conkey's



Poultry tonic fills the egg basket in spite of weather. It is not a food, but a tonic to be mixed with the regular feed during seasons when fowls get sluggish and want to loaf instead of lay. 25c, 50c, \$1.00; 12½ lb. pails, \$1.25; 25 lb. pails, \$2.50. Mailing weights, 2 lbs., 4 lbs., 8 lbs., 17 lbs., 32 lbs.; add postage.

POULTRY CONDITIONER—For general run-down condition; a fine general tonic during moulting season or after recovery from any disease. 25c; weight, 10 oz., postpaid, 30c; add postage.

Poultry Remedies

Conkey's

BRONCHITIS REMEDY—Bronchitis is different from roup, and needs a special treatment which will reach the bronchial tubes. 50c; postpaid, 55c.

CANKER SPECIAL—A new remedy that effectively reduces the cankerous growth and brings the bird back to normal without a blemish. Also fine for treating colds, etc. Price, 50c; postpaid, 55c.

CHICKEN-POX OR SORE-HEAD REMEDY—Sore-head is getting to be one of the most serious troubles. Treat it promptly and save your flock. 50c; postpaid, 55c.

CHOLERA REMEDY—For indigestion, bowel trouble and all so-called "cholera" ailments of chicks and grown fowls. 50c; postpaid, 55c.

GAPE REMEDY—Gapes is a troublesome disease, tedious to cure, but this remedy is highly successful. 50c; postpaid, 55c.

HEAD LICE DINTMENT—If a chick droops always look for lice on head, neck or under wing. 10c, 25c; postpaid, 15c, 30c.

LICE-FIX—Another and effective way of going after and getting the body louse. Three or four applications a year are sufficient. Price, 25c; postpaid, 30c.

LICE LIQUID FOR MITES—Spraying walls and painting roosts, cracks and crevices is the only way to rid houses of mites. Conkey's Lice Liquid is a highly satisfactory lice spray. Gal., \$1.00; 2 quarts, 60c; quart, 35c. Not available.

LICE POWDER—Conkey's Lice Powder is excellent for ridding fowls of body lice, as it quickly kills these pests when sifted into the feathers of the birds, and it does not injure the fowls or even taint eggs in the nest. 25c, 50c and \$1.00; mailing weight, 2 lbs., 4 lbs., 8 lbs.; add postage.

LIMBER NECK REMEDY—You will not lose a bird from limber neck if you give this medicine promptly. 50c; postpaid, 55c.

POULTRY LAXATIVE—Purgative or laxative, according to dose. 25c; postpaid, 30c.

ROUP PILLS—For the individual treatment of birds and for use in the show room. Price, 25c, 50c and \$1.00; postpaid, 30c, 55c and \$1.05.

ROUP REMEDY—Remember that roup is highly contagious. Neglect to treat promptly

endangers your whole flock. But even in neglected stages don't despair, but use Conkey's Roup Remedy according to the special directions for worse cases. 50c and \$1.00; postpaid, 55c and \$1.05.

SCALY LEG REMEDY—Keeps the feet in nice shape. 25c; postpaid, 30c.

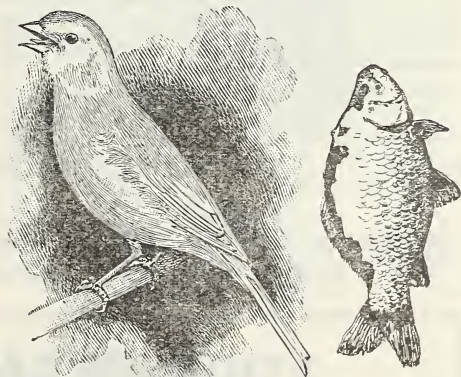
WHITE DIARRHOEA REMEDY is a special preventative and remedy for this dread scourge of incubator chicks. Price, 50c; postpaid, 55c.

Gold Coin

LICE KILLER—Kills lice in hen houses, hog pens, stables, etc. One gallon, \$1.00. Not available.

LOUSE POWDER—Kills lice, ticks, mites on poultry, pigeons, dogs, cats, stock. Can, 25c; mailing weight, 2 lbs.; add postage.

BIRD SPECIALTIES



SPRATT'S PATENT LTD

BIRD MANNA—Keeps cage birds in constant song, improves their plumage and prevents disease. 15c; postpaid, 20c.

SPRATT'S SONG RESTORER (Dunlap's)—A treat and tonic for canaries, linnets, and all seed-eating birds. 15c; postpaid, 20c.

BIRD SPECIALTIES—Continued

SPRATT'S BIRD TONIC (Henning's)—For the prevention and cure of all diseases which cage birds are subjected to. Bottles, 15c; not available.

SPRATT'S PARROT FOOD—A mixed food for parrots which should be kept before them all the time. 15c; postpaid, 20c.

SPRATT'S "DEFIANCE" MOCKING BIRD FOOD—The purest food obtainable for mocking birds, robins, thrushes, and other soft-billed birds. 30c; postpaid, 35c.

SPRATT'S PATENT POLLICRACKERS—A specially prepared biscuit for parrots and all similar birds. Made in a convenient size for a bird to grasp. Is greatly relished as a change. 15c; postpaid, 20c.

SPRATT'S "CANARDYNE" (Tibbs)—For asthma and wheezing in cage birds. Bottles, 30c; not available.

BIRD BITTERS—A remedy for nearly all the diseases of cage birds, 25c; postpaid 30c.

BIRD HEALTH—A condition powder. It should be fed only when your bird is sick, but it should be used as a preventive of disease. 15c; postpaid, 20c.

MITE POWDER—To free the bird from mites, blow a little of the Mite Powder under the feathers of the bird in the evening by means of an insect powder gun. At night cover the cage with a piece of white canton flannel. Early next morning remove the flannel and carefully destroy all the mites, which have crawled into it during the night, by immersing it in hot water. Price, 25c; postpaid, 30c.

BIRD NESTS—10c; postpaid, 15c.

Bird Seed

CLOVER LEAF—Lb. packages, 15c.

CANARY—Per lb., 15c.

HEMP—Per lb., 10c.

RAPE—Per lb., 10c.

MILLET—Per lb., 10c.

CUTTLE BONE—Two for 5c.

SUNFLOWER—Per lb., 10c.

Add postage on all bird seeds.

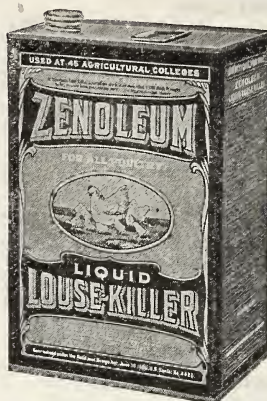
PUPPY BISCUITS (The Standard Puppy Food)—A perfect and whole food for puppies of all breeds. Puppies should be started on these biscuits, when about one month old and they should be continued until such time as their teeth become sound and strong, usually when they are about six months old. 35c; mailing weight, 3 lbs.; add postage.

DOG BISCUIT—The analysis of these biscuits shows that they are, weight for weight, equal in nourishment to fresh raw beefsteak and superior to it as a food for dogs. The standard dog food; a staple and constant food for all breeds of dogs. 35c; mailing weight, 3 lbs.; add postage.

Conkey's

DISTEMPER REMEDY—Price, 50c; postpaid, 55c.

MANGE REMEDY—For eczema, canker, sore ears, ring worm, 50c; postpaid, 55c.

DISINFECTANTS**Zenoleum**

One gallon of Zenoleum makes 100 gallons of positive disinfectant. Kills vermin, cures skin trouble. Invaluable as a remedy for diseases of poultry and all live stock. Kills lice and cures mange. Disinfects incubators. 8 oz. can, 25c; quart, 50c; half gallon, 90c; gallon, \$1.50; not available.

Avenarius**Carbolineum**

Avenarius Carbolineum is without doubt the most effective exterminator of mites and lice on poultry, poultry houses, lice on horses, cattle and hogs, ticks on sheep, fleas on cats and dogs. Price, quart, 50c; gallon, \$1.50; not available.

GERM KILLER—Destroys all disease germs, cleanses and purifies filthy places. Can, 25c and 50c; not available.

NOX-I-CIDE—Is an all-round preventative, as it keeps the quarters sanitary and kills the germs. Use it as a dip, disinfectant, spray or as a lice liquid. Gallon, \$1.50; 2 quarts, 90c; quart, 60c; pint, 35c; not available.

SULPHUR CANDLES—For fumigation, 10c; postpaid, 15c.

Lice Powders

BUHACH—Per oz., 15c; ¼ lb., 40c; 1b., \$1.25; add postage.

PERSIAN INSECT POWDER—Lb., 50c; add postage.

Tobacco Dust

For use in dust baths or nests. A cheap and effective exterminator of lice. Lb., 10c; add postage.

DOG SPECIALITIES

WORM DROPS—Price, 50c; postpaid, 55c.

SPRATT'S FISH FOOD—The best food for rearing trout, etc. Used at the leading trout hatcheries. Price, 10c; postpaid, 15c.

FOUR GREAT CABBAGES

Clover Leaf Winter Ballhead

Clover Leaf Summer Ballhead

Clover Leaf Winter Roundhead

Clover Leaf Copenhagen Market

Dairy Supplies

DE LAVAL CREAM SEPARATORS



Skims cleanest, turns and washes easiest, construction simplest, lasts the longest.

The De Laval was the first cream separator in 1878 and it has been first ever since.

More De Laval's are in use than all other makes combined.

98 per cent of the world's creameries use the De Laval exclusively.

The machine that is best for the creameryman is best for the dairyman.

De Laval hand-size machines range in capacity from 1,350 to 135 pounds per hour—seven sizes.

The De Laval is by far the most economical cream separator and always gives satisfaction.

JUNIOR—This cooler is of tin construction and is as strong and durable as it is possible to construct it, but being made of tin it is cheaper than the Bloom.

No.	Width	Height	Capacity per Hour	Price Plain	Price Complete
A	15-in.	10-in.	20-gal.	\$14.00	\$20.00
B	15-in.	14-in.	40-gal.	18.00	25.00

Plain includes cooler and troughs. Complete cooler, troughs, brackets and supply tank.

CANS

MILK — Our milk cans are made in such a manner that they will stand the hardest kind of service. They are of the best specifications throughout, and are strictly sanitary in every respect. 5-gallon cans, \$2.50 and \$2.75; weight, 15 lbs. 10 gallons, \$3.00 and \$3.50; weight, 25 lbs. Add postage.

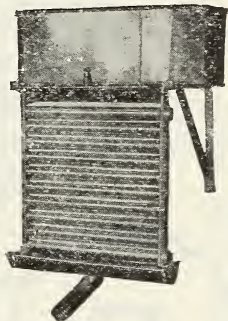
DELIVERY — Side handle, cover chained to can, well made and durable; one and two gallon sizes strong tin, three gallon St. Francis steel. 1 gallon, \$1.25; 2-gallon, \$1.50; 3-gallon, \$2.00; weights, 3, 4 and 7 lbs.; add postage.



The Bloom "Channel Tube" Milk Cooler

Is strongly constructed of seamless copper tubing, heavily tinned inside and out, with tinned brass headers, and copper troughs.

The tubing is constructed in such a manner as to form a "lip" on the bottom of each tube. These lips take the place of the strips which are usually soldered on to each tube to spread the milk uniformly over the entire surface of the cooler. This construction eliminates the trouble which results from the breaking away of these strips which is caused by expansion and contraction. All soldered joints well floated and this cooler will stand any pressure up to 100 lbs.



PRICES ON BLOOM "CHANNEL TUBE" MILK COOLER

No. of cooler	Capacity within 2 degrees of water	Total length over all	Total height over all	Size of copper tube	Plain cooler and troughs	Tank and faucet	Brackets, per set	Cooler complete
A	50 gal.	24-in.	22-in.	1½-in.	\$26.50	\$4.50	\$1.25	\$33.00
B	65 gal.	24-in.	28-in.	1½-in.	38.00	4.50	1.25	45.00

Two Great Peas

Potlatch and Laxtonian

The Ideal Sanitary Cream Cooler



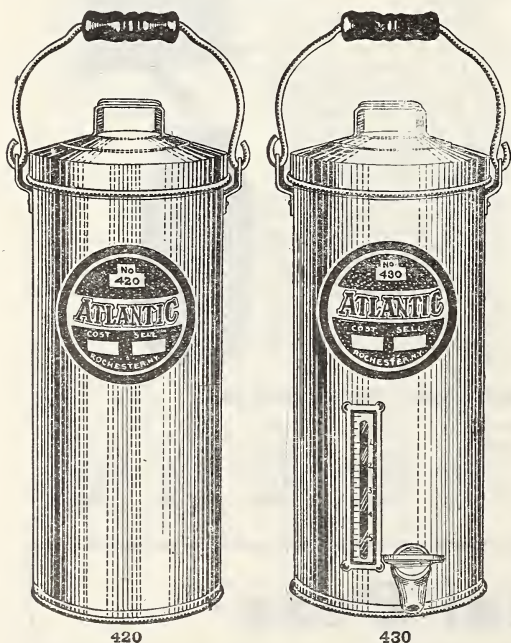
Will remove the animal heat from the cream while flowing from the separator, and will reduce the temperature sufficiently low that it can be at once mixed with older cream and set aside for future delivery without further cooling.

Its cooling capacity is sufficient that where used in connection with the largest hand-power separator, it is capable of reducing the temperature to within three to four degrees of the water used.

It is so constructed that it can be placed under the cream spout of the smallest size separator and still be high enough to deliver by gravity into a 5 or 10 gallon can.

Price, \$13.00. Sanitary cover for milk can and elbow spout to fit cooler, \$1.25 extra.

PAILS



420

430

CREAM, No. 420—20-Quart. Dimensions, 9x20. Made from full weight 5A charcoal plate. Heavy retinned, seamless cover. Heavy ears. Retinned bail with wood grip. Price, \$1.50; weight, 5 lbs.; add postage.

No. 414—14-Quart. Dimensions, 9x14. Made same as No. 420. Price, \$1.25; weight, 5 lbs.; add postage.

No. 424 and 430—14 and 20 Quart. Made the same as 414 and 420, and fitted with glass gauge and solid brass faucet. Price: 14-quart, \$1.75; weight, 5 lbs.; add postage. 20-quart, \$2.00; weight, 5 lbs.; add postage.



4744

MILK, No. 4744—14-quart. Sanitary 5A charcoal plate mirror finish, soldered inside and outside. Price, \$1.75; weight, 5 lbs.; add postage.

The following pails are strongly made, well finished and will give entire satisfaction.

Number	Size	Weight	Price
P13214	14	4 lbs.	\$1.15
P 1214	14	4 lbs.	.85
P 7512	12	4 lbs.	1.75
P13212	12	4 lbs.	1.15
P 1212	12	4 lbs.	.85
30	12	3 lbs.	.50
25	10	3 lbs.	.50
12	10	2 lbs.	.40

Add postage to price of above pails.



4624

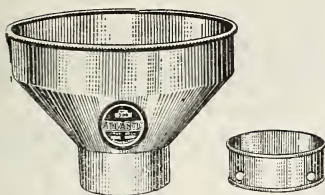
No. 4634—14-quart. Extra heavy steel clad 5A charcoal plate mirror finish, four rivet ears. Extra heavy retinned bails; soldered inside and outside. Price, \$1.10; weight, 4 lbs.; add postage.



4634

DAIRY, No. 4624—14-quart. Extra heavy steel clad 5A charcoal plate mirror finish, four rivet ears. Extra heavy re-tinned bails. Price, \$1.00; weight, 4 lbs.; add postage.

STRAINERS



3-Quart, No. 302, \$1.00; weight, 2 lbs.; add postage.

6-Quart, No. 306, \$1.25; weight, 2 lbs.; add postage.

10-Quart, No. 410, \$1.50; weight, 3 lbs.; add postage.

Extra heavy retinned, seamless, sanitary, 70 mesh, solid brass strainer cloth. Extra slip foot for cheese cloth.



910

10-Quart, No. 910.

Extra heavy retinned seamless, sanitary, double milk strainers. Inside strainer 100 mesh, outside strainer 70 mesh. Price, \$2.50; weight, 5 lbs.; add postage.

CHURNS—BARREL

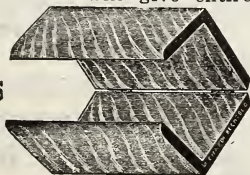


These churns are strongly constructed, are durable, do good work and will give entire satisfaction.

5 gallons --- \$5.00
9 gallons --- 5.50
15 gallons --- 6.50

BUTTER MOLDS

All wood, brass hinges and screws.
Price, 35c; weight, 1 lb.; add postage.



MILK BOTTLES

Best Flint Glass; high neck.

	Doz.	Gross
Quarts	\$0.90	\$9.75
Pints	.70	7.00
Half Pints	.60	5.75

BOTTLE CAPS—No lift, 35c per 1000; certified lift, 55c per 1000.

Special prices on barrel lots of 50 M, printed with your name.

Postage 10c extra per M.

BOTTLE DELIVERY CASES

12-Quart, \$1.25; weight, 13 lbs.; add postage.
15-Pint, \$1.25; weight, 11 lbs.; add postage.
15-Half Pint, \$1.35; weight, 13 lbs.; add postage.

BOTTLE CARRIERS

Galvanized, with improved handles.

12 bottles, half pints, each	\$1.25
6 bottles, pints, each	.75
6 bottles, quarts, each	1.00

Weight, 5 lbs., 3 lbs. and 3 lbs. each; add postage.



BRUSHES

Bowl

No. 1, DeLaval	20c
No. 113, Empire, small	25c
No. 47, Empire, large	35c

Can

No. 08, scrub	40c
Long handle, large	\$1.00

Bottle

No. 1	35c
No. 61	30c
No. 86	45c

Spout

No. 1, DeLaval	15c
No. 2, DeLaval	15c
No. 94 DeLaval	25c
Empire	15c

Test

Babcock Tester (Milk)	15c
Babcock Tester (Cream)	15c

Add 5c on all brushes if forwarded by mail.

RUBBER RINGS

No. 3033—For No. 5, 10 and 12 DeLaval Separators, 2 for 25c.

No. 3557—For No. 15 DeLaval Separators, 2 for 25c.

No. 1, 1B, 2 and 2B Empires, 2 for 25c.

Balls, Steel

For Empire Separators, 5c each.

Points, Steel

For Empire Separators, 15c each.

No. 3072—For No. 5, 10 and 12 DeLaval Separators, old style, 2 for 25c.

No. 4110—For No. 12 and 15 DeLaval Separators, new style, 2 for 25c.

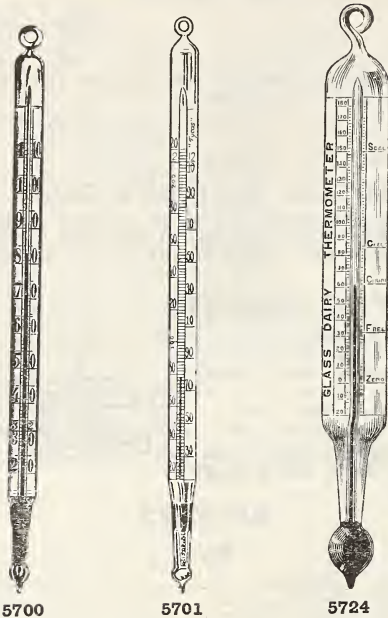
MILK CAN SEALS

Seal your cans; insure yourself against loss, at a very small cost.

Lead, single wire: 100, 25c; 500, \$1.00; 1000, \$1.75.

Seal press, each, \$2.25.

THERMOMETERS



Glass Floating, Standard Grade

5700—Churn Thermometer, glass cylinder, hand written paper scale, 1° graduation, accurate within one division of the scale, mercury tube, shot weighted, guaranteed to float upright. Approximate scale range 10° to 110° F. 8 inches. **Price, \$1.00; postpaid, \$1.10.**

5701—Pasturizing Thermometer, glass cylinder, hand written paper scale, 2° graduation, accurate within one division of the scale, mercury tube. Approximate scale range 30° to 220° F. 8 inches. **Price, \$1.25; postpaid, \$1.35.**

Common Grade

5724—Glass cylinder, printed paper scale, mercury tubes, 150° F. 8 inches. **Price, 50c; postpaid, 55c.**

MILKING TUBE—Self retaining, 3 inches, 40c.

TEAT DILATOR—For leaky teats, 40c.

LEAD PROBE—For enlarging opening in cow's teats, 25c.

ABSORBENT COTTON—An approved cotton for filtering milk, prepared in rolls, neatly wrapped and sealed. 1 1-lb. roll, 35c.

LINEN STRAINER CLOTH is used to place above or below absorbent cotton to prevent the milk from tearing the cotton as it is emptied upon it. Price per yard, 72 inches wide, 60c.

RED CROSS FILTER CLOTH—Is a specially woven cloth with the nap raised and is intended to take the place of ordinary cotton and strainer cloth, as it combines in itself the qualities of both. It is especially commended for use in filter vats, and can strainers, etc. 1-lb. rolls, 17 in. wide by 20 feet long, each, 60c.

PARCHMENT BUTTER WRAPPERS—8x11, 100, 15c; postpaid, 20c. 500, 60c; postpaid, 70c. 9x12, 100, 20c; postpaid, 25c. 500, 75c; postpaid, 85c.

BABCOCK MILK TESTER

The "20th Century" Hand

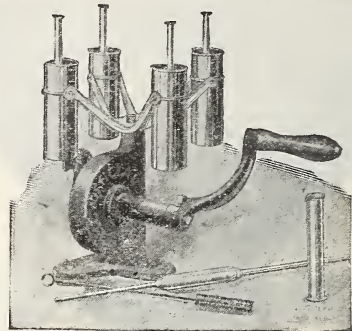
This is completely enclosed and the bottles fully protected. Built on the same principles as power testers, but smaller so that it can

be operated by hand. It is intended for hand use on the farm, in the cheese factory and creamery, or anywhere it is desired to test and the necessary steam apparatus for running steam turbine is not available. It fills completely the demand for a high speed, accurate, durable, easily operated hand power tester by which either those who sell or purchase milk can tell its true value.

With each tester is included a full set of test bottles, acid measure, bottle brush and directions.

6-bottle	-----	\$11.50
8-bottle	-----	12.50
10-bottle	-----	14.50
12-bottle	-----	16.50
24-bottle	-----	27.00
12-bottle for 9-inch bottles	-----	33.00
24-bottle for 9-inch bottles	-----	43.00

THE "OFFICIAL" HAND



Many thousands of "Official" testers have been sold. It is used by dairymen, farmers, in hotels, restaurants and laboratories. It does accurate work, and with the instructions furnished anyone can make a perfect test. The most convenient and accurate of any low priced hand tester ever offered.

Made in two, and four bottle sizes. Each tester includes a full set of bottles, pipette, acid measure, test bottle brush, acid and full directions for making tests.

No. 1—2-bottle, with necessary glassware, for milk, **\$5.25.**

No. 2—4-bottle, with necessary glassware, for milk, **\$6.25.**

No. 3—2-bottle, with necessary glassware, for both milk and cream, **\$5.75.**

No. 4—4-bottle, with necessary glassware, for both milk and cream, **\$7.25.**

ACID MEASURES

	Each	Doz.
17—5 C. C.-----	\$0.20	\$1.75
18—8 C. C.-----	.20	1.75
9 Gram-----	.45	4.50

TEST BOTTLES

	Each	Doz.
6 inch, 10%-----	\$0.25	\$2.00
6 inch, 50%, 18 dram cream-----	.30	2.75
6 inch, 50%, 9 dram cream-----	.40	3.75
9 inch, 50%, 9 dram cream-----	.45	4.50
Skim milk test bottles, doz., 80c.		

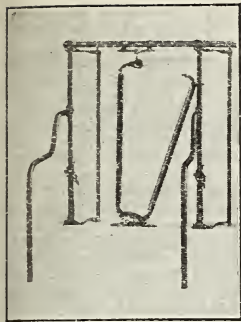
PIPETTES

17—6 C. C., each-----	\$0.35
18—C. C., each-----	.35
17—6 and 18 C. C. combined, each-----	.40

SEPARATOR OIL

Price, ½ gallon, 55c; gallon, 75c. Not mailable.

STALLS



James Stalls

The Sure Stop Swinging Post and Lock Open Device steer the cow's head right into the open stanchion.

When the cow is locked in the stanchion, the sure stop post is swung back out of the cow's way, giving her plenty of head room so that she can lie down naturally.

When the stanchions are open, ready for the cows to enter, the attendant, by the simple throwing of a bar, places the sure stop posts in position for an entire row of stalls, no matter how many.

STANCHIONS

It is a recognized fact that the use of stanchions is the most approved way of confining milk cows in their stalls. It is true that safety and comfort are the points to be considered in selecting your stanchions, and it is also equally true that all stanchions do not offer these in the same degree. This stanchion is equipped with Alignment Irons, Wood Lining, Double Chain Hanger, Anchor Plate, and Lock Open Device.

ALIGNMENT DEVICE — Adjusts the stanchion forward or backward in the stall, lengthening or shortening the stall to fit the cow.

WOOD LINING — Is made of thoroughly seasoned birch, carefully milled, shaped, polished to a perfect smoothness.

DOUBLE CHAIN HANGER — Is attached to at the sides, where the strain all comes on the side bars; is made of specially annealed malleable iron, has a very large bearing surface, giving it remarkable strength; will not break or get out of order.

ANCHOR PLATE — Set in the concrete curb, furnishes a firm anchorage to which the stanchion is attached; is so designed that a bolt may be easily inserted or taken out.

LOCK OPEN DEVICE — This consists of a small chain attached to the loose arm of the stanchion, one link being inserted into a hook on the rigid post of the stanchion frame, making it impossible for the cow to disengage it.

Price, \$3.00.

Write for prices in quantities.

S14 — This is an all wood stanchion, made of selected hard wood and is undoubtedly the best wooden stanchion made at a moderate price. It possesses all the advantageous fea-

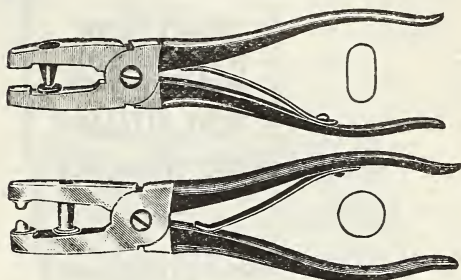
The various savings effected by James Stalls and Stanchions are made possible by the special patented features.

The James Alignment Device permits the adjustment of the stanchion forward or backward in the stall, lengthening or shortening the stall to fit the cow. It aligns all the cows — long, short and medium — at the rear, so that the manure falls in the gutter.

tures that has made this line of stanchions so popular, but does not have the alignment device, nor the double chain hanger, and the neck space is not adjustable. **Price, \$2.00.**

Write for prices in quantities.

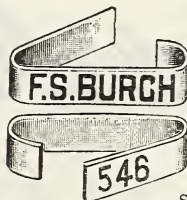
PUNCHES



The combined punch and pliers are specially made for adjusting the buttons. The cutter makes the necessary hole, and the nipples seal the button.

Each, \$1.25; add 5c for postage.

EAR TAGS



	Sheep and Hog	Cattle
25 name and number.....	\$0.75	\$0.85
50 name and number.....	1.15	1.40
100 name and number.....	1.65	2.15
500 name and number.....	7.50	10.00
25 name only or number only...	.60	.75
50 name only or number only...	.85	1.15
100 name only or number only...	1.25	1.65
500 name only or number only...	5.50	8.50

Name can be put on the one side, numbers on the other. Not more than 10 large size letters can be put on hog or sheep sizes, or fifteen on cattle. Mailing weight, 100 sheep size, 1 lb.; 100 cattle, 3 lbs.

IDEAL EAR BUTTONS

Are made of pure hardened aluminum, consisting of two parts or sleeves, thus giving an absolute seal that will not become loose.

25, \$1.25; 50, \$1.90; 100, \$3.50; 500, \$15.50; 1000, \$28.00.

Add 5c per 100 or less number for postage.



SALE TAGS

These tags are very popular with hog men for identification during sales, as they are easily fixed in the ear with the regular hog rings. Made of aluminum.

25, 60c; 50, \$1.00; 100, \$1.75.

Add 5c for postage to above prices.



Stock Feed

SHADY BROOK DAIRY FEED

—A happy combination of richness and succulence which contains the highest digestible protein grade of alfalfa that can be secured scientifically ground and blended with high grade molasses. The ingredients are mixed by a special apparatus and subjected to a process which retains and preserves the nutriment of the feed. Shady Brook Dairy Feed contains over 14% protein. Molasses used in Shady Brook Dairy Feed contains practically 50% sugar and it should be remembered that sugar in molasses is immediately



absorbed on reaching the animal's stomach. Grain foods must be converted into sugar prior to digestion and absorption.

Begin with one quart of **Shady Brook Dairy Feed** per head twice daily, mixing the dairy feed with other grains you are feeding. Do this three or four days, then **gradually** increase the dairy feed and decrease the other feed until you are feeding at least half the ration in **Shady Brook Dairy Feed**. 100 lbs., \$1.50.

Write for price, stating quantity wanted.

BEET PULP—The value of Beet Pulp is shown by the fact that something else cannot be substituted with the same results. Gluten feed can be used for cottonseed meal, corn for oats, etc., but in a properly balanced ration containing Dried Beet Pulp nothing can take the place of it without an immediate loss of milk.

Whether Beet Pulp should be fed dry or moistened is a matter which depends entirely upon the experience and preference of the individual dairyman.

Feed from eight to twelve pounds of Plain Dried Beet Pulp to each cow daily to get the best results; and of Molasses-Dried Beet Pulp from six to eight pounds.

Price, 100 lbs., \$1.50.

Write for price, stating quantity wanted.

Ryde's Cream Calf Meal

RICHEST SUBSTITUTE FOR MILK

The Great Substitute for Milk



You cannot afford to feed whole milk. The demand is too great and the price is too high, but if you can get a good milk substitute at from one-fourth to one-half the cost of whole milk, you are cutting a very important item of expense by about one-half. Ryde's Cream Calf Meal is the solution and that should be taken advantage of. Ryde's Cream Calf Meal is not an experiment, but one that has

been tried and tested thoroughly and fills a long-felt want. It is not the by-product or offal of any mill or factory and, being thoroughly cooked, it is absolutely digestible and will not scour the youngest calf. When fed in dry form it is an absolute cure for the worst cases of scours. Price, 25 lbs., \$1.25; 50 lbs., \$2.25; 100 lbs., \$4.25.

"PROTEINA," SOY BEAN OIL MEAL

"Proteina" is unequaled as a feed for dairy stock, producing immediate increase in milk and butter fat, as is abundantly proved by actual tests.

"Proteina" is unsurpassed as a poultry food owing to the large amount of albumen it contains. Per bag, \$2.50.

This Pair
Valued at
\$10,000.00

These calves raised on Ryde's Cream Calf Meal by the Munroe Company, Spokane, Washington.

Read their letter.



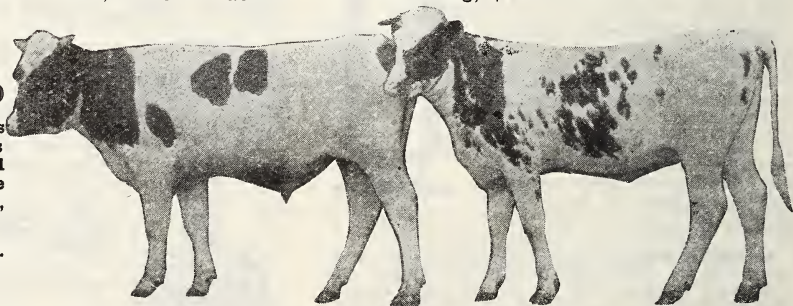
Ryde & Co., Chicago, Ill.

Dear Sirs: Am sending you today, under separate cover, a photo of a pair of calves we value at \$10,000.00.

They are nine months old. We raise all our calves for first two or three weeks on whole milk, then gradually work over to skim milk and your meal (one-third milk, two-thirds meal). Have tried several different brands of meal, but quit them all in favor of yours, for we don't have any of that annoying indigestion and scours with yours that we experience with the others. Visitors to our herd invariably remark "My what large, healthy looking calves," and when we ship a calf to the purchaser, who has not seen it, it is a source of great satisfaction to know that he is getting more than he expects.

But the most important point of all is the fact that when these heifers get to the producing age they are able to do big work because their digestive apparatus was never impaired nor their growth hindered.

Respectfully yours,
J. E. MUNROE.



Spokane, Wash., June 23, 1915.

OIL MEAL

Suggestions for Feeding

MILCH COWS—Any quantity per day not exceeding two quarts per head.

FEEDING FOR MARKET—Three to six pounds per head per day.

HOGS—About 25 pounds to each barrel of thin slop, mix thoroughly and allow to stand about ten hours before feeding.

SHEEP—One to one and one-half pounds per day per head. This amount is not sufficient for fattening wethers, but has the positive effect of largely increasing the growth of wool.

HORSES—One pint to one quart per head per day when fed with grain, bran and similar feeds.

FOWLS—Mix into a soft or boiled feed or a bran mash, at least one-tenth of the mixture to be fine ground Oil Meal.

LINSEED OIL MEAL is a food, not a medicine. There is no danger of feeding too much.

LINSEED OIL MEAL has proven that it is the greatest flesh-former, milk and butter producer, of all concentrated stock feeds.

ITS VALUE AS A FLESH PRODUCER

The following table shows value as compared with other material, as to the percentage of flesh produced from 100 pounds:

Indian Corn Meal	-----	11 per cent
Barley Meal	-----	13 per cent
Wheat	-----	14 per cent
Oat Meal	-----	18 per cent
Oil Meal	-----	22 per cent

N. B.—1 lb. Oil Meal equals 3 lbs. corn, 9 lbs. wheat bran, or 15 lbs. hay.

ITS VALUE AS A MILK PRODUCER

The following table shows the relative value of feeds as milk producers:

Timothy	-----	per 100 lbs. \$0.50
Clover Hay	-----	per 100 lbs. .60
Corn	-----	per 100 lbs. .50
Barley	-----	per 100 lbs. .55
Oats	-----	per 100 lbs. .60
Wheat	-----	per 100 lbs. .65
Wheat Bran	-----	per 100 lbs. .70
Oil Meal	-----	per 100 lbs. 1.45

Price, \$2.50.

DIGESTER TANKAGE

Every well informed feeder knows that corn and other home grown feeding stuffs lack protein and phosphates.

To supply these materials in most economical form Experiment Stations and Progressive Feeders now recognize **Digester Tankage** as being the best and cheapest that can be secured.

Brood sows must have plenty of protein and phosphates in their rations, otherwise they will farrow weak, puny pigs, defective in bone and muscle. **Digester Tankage** is appetizing and helpful when fed to newly weaned pigs.

Hogs on clover or alfalfa pasture if fed a little **Digester Tankage** will be improved and cost of gains greatly reduced. 100 lbs., \$2.25.

SALT

Butter, Leslie's Recrystallized, 50-lb. bag, 80c.
Brick, Leslie's 5-lb. brick, 15c.
Half Ground, 100-lb. bag, \$1.00.
Lump, Utah, 100 lbs., \$1.50.

STOCK TONICS

Gold Coin

CATTLE TONIC—Four doses for 1 cent. Feed Cattle Tonic for loss of appetite, to increase flow of milk, to cure scours, to aid in fattening and finishing of steers, to prevent and cure scour in calves. 25c and 50c packages; 25-lb. pail, \$3.50; mailing weight, 2 lbs., 4 lbs., 30 lbs.; add postage.

HOG TONIC WORM EXPELLER—Four doses for 1 cents. Hog Tonic is a medicinal tonic made from the roots, barks, seeds and herbs required by Nature to keep the system of hogs in healthy condition, for overcoming and preventing diseases and worms in swine, and to aid digestion and quick fattening. A splendid stimulant for the internal treatment of hog cholera. 50c pkgs; 25-lb. pail, \$3.50; mailing weight, 4 lbs., 30 lbs.; add postage.



HORSE TONIC—Horse Tonic hardens the muscles. It aids digestion. It purifies the blood and sleekens the coat. It clears the water, regulates the bowels, cures and prevents disease. Price, 25c, 50c and \$1.00 packages; 12½-lb. pails, \$2.00; 25-lb. pails, \$3.50; mailing weight, 2 lbs., 4 lbs., 7 lbs., 17 lbs., 30 lbs.; add postage.

Conkey's

STOCK TONIC—It keeps up appetite, insures full digestion of the ration, prevents waste of feed, that is, brings you the most possible return for every pound of feed. Not a food itself, but a medicine. 25c, 50c, \$1.00; 12 lbs. (pail), \$2.00; 25 lbs. (pail), \$3.50; mailing weight, 2 lbs., 4 lbs., 8 lbs., 17 lbs., 32 lbs.; add postage.

HORSE REMEDY—A stimulating medicine for debilitated and exhausted conditions. \$1.00.

COW SPECIAL—Is strictly a medicine—a preventive measure—a tonic—an aid in the treatment of certain cow disorders when used as directed. Cow special does not contain any filler. If consumers are not satisfied with the results obtained we will cheerfully refund the purchase price. 50c and \$1.00; mailing weight, 2 and 4 lbs.; add postage.

STOCK REMEDIES

Conkey's

ABSORBENT—Cures lameness, removes blemishes. \$1.00; postpaid, \$1.05.

BAG OINTMENT—A penetrating, softening application which soothes quickly. A remedy for many bag troubles. 25c and 50c; postpaid, 30c and 55c.

COLIC REMEDY—A lifesaver and should be on hand for emergency. 50c and \$1.00; postpaid, 55c and \$1.05.

DISTEMPER AND COUGH REMEDY—For all cases of cough, cold, chill and fever, epizootic, distemper or strangles, pink eye, etc. 50c and \$1.00; postpaid, 55c and \$1.05.

Eye Remedy, 50c; postpaid, 55c.

Fever Remedy, \$1.00; postpaid, \$1.05.

HEAVE REMEDY—Corrects digestive disturbance as well as nervous derangement. \$1.00; postpaid, \$1.05.

HOOF REMEDY—Keep's your horse's hoofs in nice shape. Pt., 50c; mailing weight, 2 lbs.; add postage.

PAIN LOTION—For soreness, throbbing pains, inflammation, cuts, wounds, burns. 50c; postpaid, 55c.

STOCK REMEDIES—Continued

FLY KNOCKER

—All the time your stock is pestered by flies you are losing your profits. Use it on your horses and cattle night and morning. Does not injure the hide; odor will not taint milk. Keeps flies off, kills every one it hits, prevents lice and grub. Qt., 50c; 2 qts., 75c; gal., \$1.25; 5 gal. cans, \$5.50. Not mailable.

GALL SALVE—

A healing ointment for sores, cuts, harness and saddle galls, chafes, etc. 25c and 50c; postpaid, 30c, 55c.

Healing Salve, postpaid, 30c.

HEALING POWDER—A wonderful gall cure. For chafes, sores, etc. 25c and 50c; postpaid, 30c, 55c.

FISTULA AND POLL EVIL REMEDY—Effective and very humane. \$2.00 postpaid, \$2.05.

WORM REMEDY—A prompt and powerful remedy for stock badly infested. 50c; postpaid, 55c.

Gold Coin

COLD AND DISTEMPER CURE—A specific for distemper in young or old horses. Pkg., 50c; mailing weight, 2 lbs.; add postage.

COLIC CURE—Cures wind colic, bloat, spasmodic colic, stoppage of urine, etc. Bottle, 50c. Not mailable.

COMPOUND LINIMENT—Rub the affected parts thoroughly with the liniment. Bandage only when a blister is desired. Bottle, 50c. Not mailable.

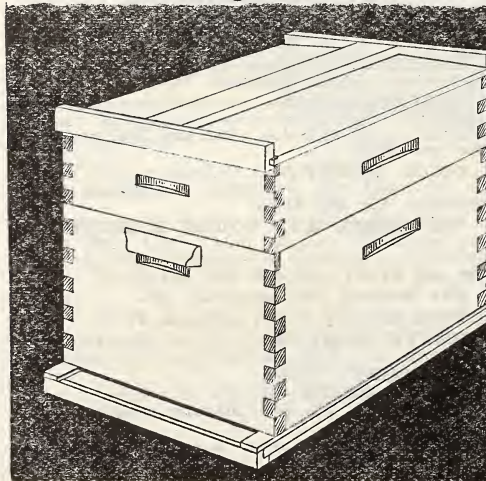
CONDITION POWDER—For sick animals. A high class medicine for fevers and all acute diseases. Package, 50c. Mailing weight, 2 lbs.; add postage.

COUGH AND LUNG SYRUP—This is a cough syrup for horses, cattle, sheep or hogs. It is important to attend to all lung diseases promptly. Bottle, 75c and \$3.50. Not mailable.

FOOT REMEDY—Quickly cures sore feet, lameness from corns, sand cracks, quarter cracks, contracted heels, etc. Can, 50c. Not mailable.

Fly Blister, \$2.00; postpaid, \$2.05.

GALL CURE—For sores on neck, shoulders and back from rubbing of harness or saddles.



All cuts or wounds on horses. Can, 50c; postpaid, 55c.

HEALING OIL—For barb wire cuts, nail injuries, burns, flesh wounds or cuts. Bottle, 25c and 50c. Not mailable.

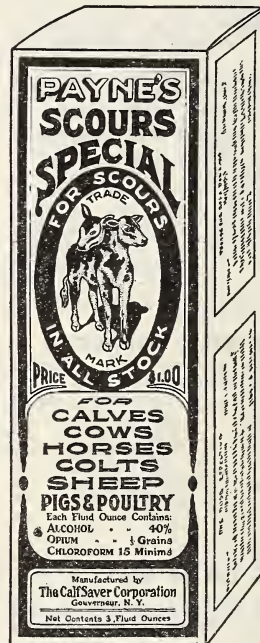
HEAVE CURE—It is the best and cheapest heave cure. Package, 50c; mailing weight, 2 lbs.; add postage.

Hoof Ointment, \$1.00; mailing weight, 2 lbs.; add postage.

LUMP JAW—Cures the disease known as lumpy jaw, which is due to a micro-organism. \$2.00; mailing weight, 1 lb.; add postage.

SPAVIN CURE—For curable spavins. Quickly reduces all soft swellings as "bog" spavin, blood spavin, swollen joints, inflammation, etc. Bottle, \$1.50. Not mailable. Put up also in paste form, \$2.00.

WORM POWDER—Kills all worms and bots in horses, hogs, sheep, dogs, etc. Package, 50c; mailing weight, 2 lbs.; add postage.

PAYNE'S SCOURS SPECIAL

It is well known that scours in calves is a source of great annoyance and loss. This should be given immediate attention, so that it may be the more easily checked. Paynes' Scours Special is also used for cows, horses, sheep, pigs and poultry. Full directions on each bottle, \$1.00. Not mailable.

CONKEY'S**SHEEP DIP—**

This is a new scientific "dip" scientific "dip" founded on scientific principles. It is cheaper, stronger and safer than any other "dip." It goes further. Quart, 50c; ½ gallon, 75c; gallon, \$1.25. Not mailable.

HARNES SOAP

—For cleaning and polishing harness, buggy tops. Can, 25c; mailing weight, 2 lbs.; add postage.

Rapid Cleaner Soap, 25c; mailing weight, 2 lbs.; add postage.

Bee Supplies

DOVETAILED HIVES—The dovetailed hive is now the leading hive, as it contains many of the most desirable features of the various hives for the rapid handling of bees, and is one of the cheapest and best hives manufactured.

DESCRIPTION—The body is ¾ inch thick, and is fitted with metal rivets of an improved style. Outside of body is 13½ x 20 inches, and 9½ inches long. The body holds eight Hoffman frames, L size, and a division board. The frames hang below the top edge of the hive, so that there is a bee space above them, but the bottoms of the frames are flush with the bottom edges of hives, the bee space being made by the projection of the sides and can be enlarged or decreased by inverting bottom board. The bottom is 14x21 inches. The cover is made with grooved cleats at each end to prevent warping. The supers are the same size as the body of hive, but only half the depth, so that when two are put together they make a full-depth body. The inside width of the body is 12½ inches, giving room for eight frames and a division

BEE SUPPLIES—Continued

board. There are objections to using sections other than $4\frac{1}{2} \times 4\frac{1}{2}$, as they require special sized shipping cases and special sized cartons.

Complete hive consists of 1 body, 1 super, 1 bottom board, 1 cover, 8 Hoffman brood frames, 1 division board, 2 wedges for super, 6 section holders, 6 slotted separators.

No. 1—Pine or cedar Hives, complete, with metal spacers, metal cover and air space under cover: Nailed, \$2.50; K. D., in fives, \$11.25.

No. 2—Pine or cedar Hives, complete, with wooden spacers, wooden covers: Nailed, \$2.25; K. D., in fives, \$10.00.

No. 1—Body only: Nailed, \$1.75; K. D., in fives, \$8.00.

No. 2—Body only: Nailed, \$1.55; K. D., in fives, \$6.75.

Supers—Pine or Cedar: Nailed, 85c; K. D., in fives, \$3.75.

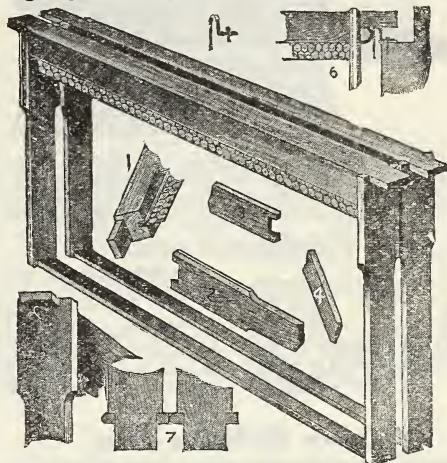
Section Holders—Slotted: Each, 3c; 50, \$1.25; 100, \$2.25; weight of 100, 26 lbs.; add postage.

Slotted Separators—Each, 2c; 50, 75c; 100, \$1.25; weight of 100, 8 lbs.; add postage.

Section Honey Boxes

No. 1 SECTIONS—Are made of the choicest white basswood lumber, and all are perfect in finish and free from defects. They are not all snow-white, but vary from that to light cream color. **Price, per 25, 25c; 100, 85c; 500, \$3.75; 1000, \$7.00; weight, 13 lbs. per 100; add postage.**

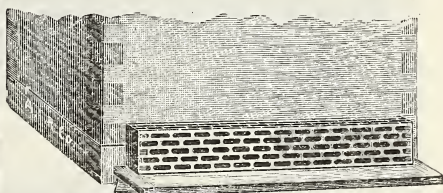
all the good features and for a hanging frame it is the best self-spacer we know of. It economizes labor in that it can be handled in groups of three or four; and any particular



frame can be removed without thumbing over nearly all the other frames in the hive to get room. **Price, 8, 25; 50, \$1.75; 100, \$3.25; weight per 100, 28 lbs.; add postage.**

Bee Entrance Guards

These are to admit workers, and to exclude drones. After the drones are all out, fix the guards over the entrance and at night the drones can be destroyed. **30c; by mail, 35c.**

**Spur Wire Imbedder**

The latest spur wire imbedder is a most decided improvement over the old one. The



teeth are wider and grooved in the direction of the circumference midway across front of teeth, so that the wheel will easily follow the wire. **25c; by mail, 30c.**

Cogshall's Bee Brush

This is a sort of whisk broom especially adapted and made for brushing bees. The strands are thinned out and longer, so as to give a soft, pliable sweep to the combs. **25c; postpaid, 30c.**

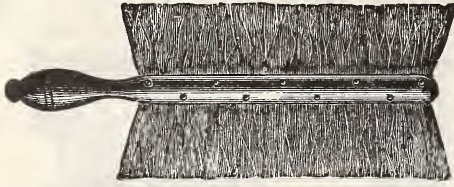
Van Deusen Wax Tube Fastener

For fastening the foundation sheets to thin top-bars there is nothing better than the Van Deusen wax tube. It is simply a brass tube half an inch in diameter, six inches long and tapering. This is filled with hot wax and the point is then slowly drawn along the edge of the foundation in contact with the top-bar, leaving a fine stream of hot wax to cement it. **20c; by mail, 25c.**

Hoffman Brood Frames

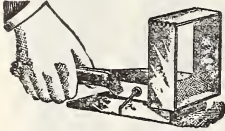
The Hoffman Improved Foundation Fastening Frames are the latest and best brood frames. The top bar is made with a beveled frame which holds the foundation in place, perfectly straight and exactly in center to top bar. It seems to combine in itself nearly

The Dixie Bee Brush



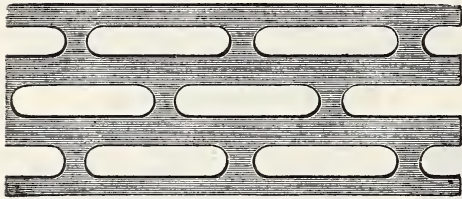
It is a double brush with a strong wood handle, put together with brass nails to avoid rust. The strands are soft and pliable to give an easy, gentle sweep. 25c; postpaid, 30c.

Foundation Fastener



PARKER'S — The Parker Fastener is a cheap machine for fastening starters. With a little practice it can be made to work very satisfactorily. 40c; by mail, 50c.

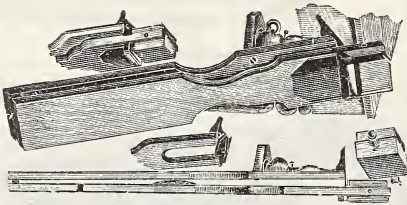
Queen Excluding Zincs



This is used between the upper and lower stories, to prevent the queen going up above. It is also used in making entrance guards, queen and drone traps, etc. 60c; by mail, 65c.

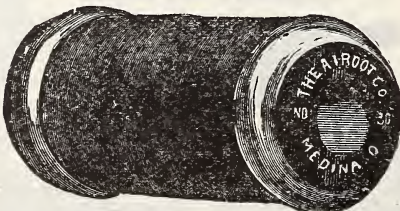
Owing to the uncertainty of the price of zinc, prices quoted for all items which include zinc in their make-up are not guaranteed and items will only be sent out at prices prevailing when order is filled.

Daisy



DAISY—This is the best for putting starters into sections. Nothing could be more simple or more easily operated than this machine. With this a boy or girl will put starters in about 500 sections per hour. Weight, 6 lbs.; without lamp, \$1.25; with lamp, \$1.50.

Tinned Wire



No. 30 Tinned Wire seems to be the most suitable of any for wiring frames.

¼-lb. size Spools No. 30 Tinned Wire, each, 15c; ½ doz., 85c; doz., \$1.50.

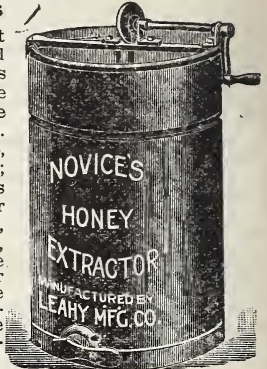
½ lb. size Spools No. 30 Tinned Wire, each, 25c; ½ doz., \$1.25; doz., \$2.25.

1 lb. size Spools No. 30 Tinned Wire, each, 40c; ½ doz., \$2.00; doz., \$3.75.

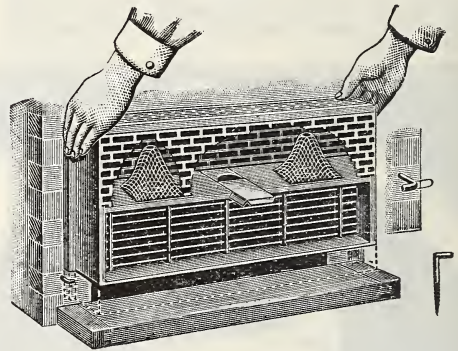
Postpaid, 20c, 30c, 50c.

Honey Extractors

For those who want the smallest and lightest machine, as well as one moderate in price, this is the best in the market. It is a non-reversible, two-frame machine; that is, the frames must be pulled clear out of the extractor, reversed in the air, and put back into the baskets the other side too. The novice will handle the product of fifty or more colonies in good seasons. Price, \$12.00.



Alley's Combined Drone and Queen Trap

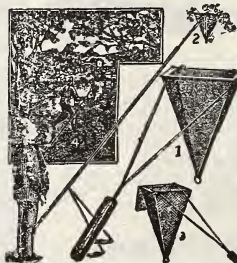


A perfect non-swarming arrangement. Weight, 1 lb. 85c; postpaid, 90c.

Comb Foundation

	Size of Sheet	1b.	5-lb.	10-lb.
Medium Brood,	7½x16½	---\$0.65	\$0.64	\$0.63
Light Brood,	7½x16½	-----	.70	.69 .68
Thin Super,	3¾x15½	-----	.70	.69 .68
Extra Thin, Super,	3¾x15½	-----	.75	.74 .73

Not less than 1 pound mailed. We consider this a dangerous way of sending these goods.



Manum's

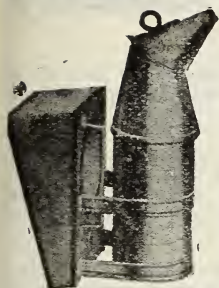
Swarm Catcher

This swarm catcher is the best article of its kind on the market, and it will be found a valuable addition to the appliances of the apiary. No pole. \$1.75.

Veils

A great necessity and very cheap. Cotton; silk face. 70c; postpaid, 75c.

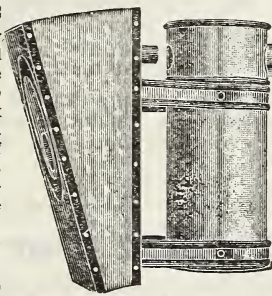
Smokers



Higginsville

This smoker is, as its name implies, strictly a Higginsville product. It is a hot blast, and has a 3¼-inch fire box, and the nozzle is detachable to admit of filling or cleaning. It has as strong a blast as any smoker made. A bar of folded tin running parallel with a bellows protects the hand from coming in contact with the hot fire box. \$1; postpaid, \$1.10.

THE ACME SMOKER is undoubtedly the best cold blast smoker on the market. It has no tube in the fire box to clog. It throws a large volume of smoke at right angles to the fire box without a curved nozzle to lessen the blast. In fact, it is the perfection of smokers. Price, 75c; postpaid, 85c.



Acme

Queen Cages

The cover, to insure prompt delivery, is printed in exact fac simile of cut. On the reverse side are printed directions for introducing Queens. 5c each; postpaid, 10c.



Gloves, Rubber

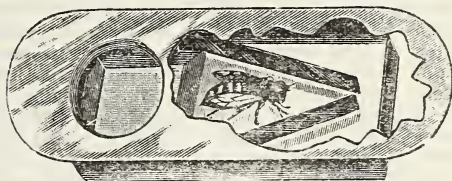
Gloves for protection of the hands and wrists are almost indispensable.

Rubber, with sleeves: Gents' No. 10, 11, 12, \$1.75; postpaid, \$1.85.



Canvas, with sleeves, medium and large, 65c; postpaid, 75c.

Porter Bee Escape



No apiarist can afford to be without bee-escapes. In taking off honey it is the greatest labor saving device that has been introduced in late years. It avoids shaking heavy spurs to get the bees out. 25c; postpaid, 30c.

Feeding

Bees are fed for two purposes: to stimulate brood-rearing or to supply them with necessary stores for winter. For stimulating, a pint to a pint and a half of syrup daily either at the entrance at night or inside the hive should be given until the required amount of brood is reared. In preparing for winter it is better to give the necessary stores all at one feed.

Feeders



SIMPLICITY—This is to be filled with syrup by mixing together granulated sugar and water in equal proportions by measure and stirring or heating until thoroughly dissolved. This feeder may be placed at the entrance at night, over the brood frames, by placing on top of the hive or in the brood-nest itself, if a couple of frames are removed. 10c; by mail, 15c.

MILLERS—Sets on hive like a super. Holds about 25 lbs. of syrup. 50c; postpaid, 60c, K. D.

OUR SEVEN LEADERS

Clover Leaf Winter Ballhead Cabbage
 Clover Leaf Summer Ballhead Cabbage
 Clover Leaf Winter Roundhead Cabbage
 Clover Leaf Copenhagen Market Cabbage
 Clover Leaf Snowball Cauliflower
 Potlatch Peas Laxtonian Peas

WHEN ORDERING MAILABLE GOODS DO NOT FORGET TO ADD POSTAGE

Sweet Clover in Spokane County

BY J. R. SHINN, County Agriculturist.

The experience of the farmers in Spokane county during 1915 with sweet clover as a pasture and forage crop has been very gratifying. For pasture purposes this crop has been grown under a variety of different conditions. It seems to do well on exposed sites as well as in the more protected locations. We have seen it growing on the steep south hill slopes, on sandy soils, on scab land as well as on the rich north hill slopes of the Palouse country; also on moist swamp areas. It is well adapted for pasture purposes on most all kinds of soils when seeded by itself.

One of the strong features of this crop is the fact that it has given good stands when seeded with the grain crops. This is especially true where barley has been grown, using 60 pounds barley and 5 pounds sweet clover to the acre. With spring wheat seed-

ed at the rate of 30 pounds to the acre good stands have been secured by using 5 pounds of sweet clover.

Early spring seeding has given the best results. In one case the seed was put upon the ground the last of February and the plants reached a height of two to four feet during the summer.

Experience has shown that sweet clover is eaten readily by most stock provided it is pastured before getting too large. As a hay crop it is relished by cattle and horses and will make from 5 to 10 tons to the acre. In the green state, when combined with wheat, it has made an excellent silage.

We have not tested it as a soil builder, but from results in other states it is pre-eminently the leader of all legumes.

See page 40.

Pure Seed Movement Has Our Support

In nearly every instance we are able to supply purity test with grasses, clovers and field seeds. Our vegetable seeds are tested for germination. All seeds not giving satisfactory test are destroyed. Our seeds are known for quality throughout the entire Northwest.

Standard Text and Reference Works

By Recognized Authorities

Farming and Gardening

	Postpaid
Dry Farming	\$1.65
Fertility of the Land, 421 pages	1.70
Fertilizers, 335 pages	1.40
Irrigation and Drainage, 502 pages	1.70
Milk and Its Products, 311 pages	1.70
Bush Fruits, 537 pages	1.70
Principles of Fruit Growing, 516 pages	1.60
The Nursery Book, 365 pages	1.70
The Pruning Book, 537 pages	1.70
Plant Breeding	1.40
Manual of Gardening, 534 pages	2.20
The Principles of Vegetables Gardening, 458 pages	1.70
The Forcing Book, 266 pages	1.35
The Spraying of Plants, 399 pages	1.35
Mushroom Culture, 32 pages	1.15

Stock

The Feeding of Animals, 450 pages	1.65
The Horse, 400 pages	1.40
Diseases of Animals	1.65
Conkey's Stock Book, 225 pages10

Bees

A B C and X Y Z of Bee Culture, 500 pp.	1.75
How to Keep Bees for Profit, 343 pages	1.65

Poultry

	Postpaid
Artificial Incubating and Brooding	\$0.50
The Chick Book50
Eggs and Egg Farms50
Egg Record and Account Book25
American Standard of Perfection, 290 pp.	2.00
Conkey's Poultry Book, 80 pages05
Farm Poultry, 341 pages	1.45
How to Keep Hens for Profit, 380 pp.	1.05
The Philo System, 95 pages	1.00

Cultural Directions

Celery	
Asparagus	
The Dahlia	
House Plants	
The Sweet Pea	
Mushroom Culture	
Annuals from Seed	
Hot-Beds and Frames	
The Vegetable Garden	
Cabbage and Cauliflower	

If requested at time of order any of the above cultural directions will be sent free if you specify which ones you want.

ENGLISH AND GERMAN NAMES OF GRAINS AND FIELD SEEDS

ENGLISH	GERMAN	ENGLISH	GERMAN	ENGLISH	GERMAN
Wheat	Weizen	Lentils	Linse	Red Top Grass	Weissen fuchs schwanz
Oats	Hafer	Vetch, or Tares	Wicke	English Rye Grass	Englises Raygras
Rye	Roggen	Speltz	Spelz	Italian Rye Grass	Italienisches Ray Gras
Barley	Gerste	Red Clover	Rother Klee	Millet	Hirse
Buckwheat	Buckweizen	White Clover	Weisser Klee	Blue Grass	Blaugras
Emmer	Emmer	Alfalfa	Lucerne		
Cheat	Cheat	Timothy	Timotheus		
Flax	Flachs	Orchard Grass	Brautgras		

Foreign Names of Vegetables and Herbs

ENGLISH	GERMAN	FRENCH	SPANISH	ITALIAN	DANISH-NORWEGIAN	POLISH
Anise-----	Anis, Gruner Anis-----	Anis-----	Anis, Matalahuga-----	Aniso, Anacio-----	Anis-----	Anyz-----
Artichoke-----	Artischoke-----	Artichaut-----	Alcachofa-----	Articioeca-----	Artiskok-----	Karczochy
Asparagus-----	Spargel-----	Asperge-----	Esparrago-----	Sparagio-----	Asparges-----	Szparagi
Balm-----	Citronen-Melisse-----	Melisse-----	Toronjil, Citronella-----	Melissa-----	Balsamurt-----	Balsam
Basil-----	Basilikum-----	Basilic grand-----	Albaca-----	Basilico-----	Basilikum-----	Bazylia
Beans-----	Bohnen-----	Haricots-----	Habichuela-----	Fagioli-----	Boenner-----	Fasola
Beet-----	Rube-----	Betterave-----	Remolacha-----	Barbabietola-----	Roedbede-----	Buraki
Borage-----	Boretsch-----	Bourrache-----	Boraja-----	Boragine-----	Borago-----	Boraz
Broccoli-----	Spargelkohl-----	Chou Brocoli-----	Broculi-----	Brocoli-----	Broccoli-Kaal-----	Brokuly
Brussels Sprouts-----	Rosenkohl-----	Chou de Bruxelles-----	Bretones de Bruselas-----	Cavolo di Brusselles-----	Rosenkaal-----	Latorvil
Cabbage-----	Kopfkohl, Kraut-----	Chou pomme-----	Col repello-----	Cavolo cappuccio-----	Hovedkaal-----	Kapusta
Cabbage, Savoy-----	Wirsing-----	Chou de Milan-----	Col de Milan-----	Cavolo di Milano-----	Savoikaal-----	Sabaudzka Kapusta
Caraway-----	Feld-Kummel-----	Cumin des pres-----	Comino-----	Carvi-----	Karve-----	Kminek
Carrot-----	Carotten, Mohren-----	Carotte-----	Zanahoria-----	Carota-----	Gulerod-----	Marchew
Cauliflower-----	Blumenkohl-----	Chou-fleur-----	Coliflor-----	Cavolfiore-----	Blomkaal-----	Kalafior
Celery-----	Sellerie-----	Celeri-----	Apio-----	Sedano-----	Selleri-----	Selery
Celeriac-----	Knoll-Sellerie-----	Celeri-rave-----	Apio-nabo-----	Sedano-rapa-----	Knopselleri-----	Selery (Korzen)
Chervil-----	Kerbel-----	Cerfeuil-----	Perifollo-----	Cerfoglio-----	Kjoervel-----	Czechrzyca
Chicory-----	Cichorienwurzel-----	Chicoree sauvage-----	Achicoria-----	Cicoria salvatica-----	Cichorie-----	Cykorya
Coriander-----	Coriander-----	Coriandre-----	Culantro-----	Coriandorlo-----	Koriander-----	Koledra
Corn Salad-----	Feldsalat-----	Mache-----	Canonigos-----	Valeriana-----	Vaarsalat-----	Ziarno Salaty
Corn-----	Mais-----	Mais-----	Maiz-----	Mais-----	Mais-----	Kukurydza
Cress-----	Garten-Kresse-----	Cresson alenois-----	Mastuerzo-----	Agretto-----	Karse-----	Rzerzucha
Cress, Water-----	Brunnenkresse-----	Cresson de fontaine-----	Berro-----	Nasturzio aquatico-----	Broendkarse-----	Rzerzucha wodna
Cucumber-----	Gurken-----	Concombre-----	Cohombro-----	Cetriolo-----	Agurk-----	Ogorek
Dandelion-----	Lowenzahn-----	Pissenlit-----	Diente de leon-----	Dente di leone-----	Loevetand-----	Papawa
Dill-----	Dill-----	Aneth-----	Eneldo-----	Aneto-----	Dil-----	Koper
Egg Plant-----	Eierpflanze-----	Aubergine-----	Berengena-----	Petronciano-----	Aegplante-----	Gruszka milosna
Endive, Curled-----	Endivien-----	Chicoree Endive-----	Endivia-----	Endivia-----	Endivie-----	Endywia
Endive, Broad Leaf-----	Escariol-----	Chicoree-Scarole Ronde-----	Escarolo-----	Endivia Scariola-----		
Fennel-----	Fenchel-----	Fenouil-----	Hinojo-----	Finocchio-----	Fennikel-----	Koper
Garlic-----	Knoblauch-----	Ail-----	Ajo-----	Aglio-----	Hvidloeg-----	Czosnek
Horehound-----	Andorn-----	Marrube blanc-----	Marrubio-----	Marrubio-----		Marubium
Horse Radish-----	Meer Rettig-----	Raifort sauvage-----	Taramago-----	Rafano-----	Peberrrod-----	Chrzan
Hyssop-----	Isop-----	Hyssope-----	Hisopo-----	Isoppo-----	Isop-----	Hyzop
Kale-----	Blatterkohl-----	Chou vert-----	Breton, Berza-----	Cavolo verde-----	Groenkaal-----	Solanka
Kohl Rabi-----	Knollkohl-----	Chou-rave-----	Col rabano-----	Cavolo rapa-----	Kaalrabi-----	Kalarepa
Lavender-----	Lavendel-----	Lavende-----	Espiego-----	Lavanda-----	Lavendel-----	Lawenda
Leek-----	Porree, Lauch-----	Poireau-----	Puerro-----	Porro-----	Purre-----	Pory
Lettuce-----	Lattich, Kopfsalat-----	Laitue-----	Lechuga-----	Lattuga-----	Salat-----	Salata
Marjoram-----	Majoran-----	Marjolaine-----	Mejorana-----	Maggiarana-----	Merian-----	Majeranek
Melon-----	Melone-----	Melon-----	Melon-----	Popone-----	Melon-----	Melon
Melon, Water-----	Wasser-Melone-----	Melon d'eau-----	Sandia-----	Melon d'acqua-----	Vandmelon-----	Melon, wodny
Mushroom-----	Schwamm-----	Champignon-----	Seta-----	Fungo pratajolo-----	Champignon-----	Gryb
Nasturtium-----	Kapuciner Kresse-----	Capucine-----	Capuchina-----	Nasturzio-----	Blomkarse-----	Nasturcyja
Okra-----	Ocher-----	Gombaud-----	Gombo-----	Ocra-----	Hibiskus-----	Glinka biatozotta
Onion-----	Zwiebel-----	Ognon-----	Cebolla-----	Cipollo-----	Roedloeg-----	Cebula
Parsley-----	Petersilie-----	Persil-----	Perejil-----	Prezzemolo-----	Persille-----	Pieturszka
Parsnip-----	Pastinake-----	Panais-----	Chirivya-----	Pastinaca-----	Pastinak-----	Pasternak
Peas-----	Erbsen-----	Pois-----	Guisante-----	Pisello-----	Erter-----	Groch
Pepper-----	Pfeffer-----	Piment-----	Pimiento-----	Peperone-----	Spansk Peber-----	Pieprz
Pumpkin-----	Melonen-Kurbiss-----	Pitiron-----	Calabaza totanera-----	Zucca-----	Graeskar-----	Bania
Radish-----	Radies-----	Radis-----	Rabanito-----	Ravanello-----	Reddik-----	Rzodkiew
Rhubarb-----	Rhabarber-----	Rhubarbe-----	Ruibarbo-----	Rabarbaro-----	Rhabarber-----	Rubarbarum
Rosemary-----	Rosmarin-----	Romarin-----	Romero-----	Rosmarino-----	Rosmarin-----	Rozmaryn
Rue-----	Raute-----	Rue-----	Rula-----		Rude-----	Ruta
Rutabaga-----	Kohlrube, Wrucken-----	Chou-navet-----	Col nabo, Nabicol-----	Cavolo navone-----	Roe-----	
Saffron-----	Safran-----	Safran-----	Azafran-----	Zafferano-----	Safran-----	Szafran
Sage-----	Salbei-----	Sauge-----	Salvia-----	Salvia-----	Salvie-----	Szalwia
Salsify-----	Haferwurzel-----	Salsifis-----	Salsifi blanco-----	Sassefrica-----	Havverod-----	Jarzywnwa ostryga
Sorrel-----	Sauerampfer-----	Oseille-----	Acedera-----	Acetosa-----	Syre-----	Szczaw
Summer Savory-----	Bohnenkraut-----	Sarriette annuelle-----	Ajedrea comun-----	Santoreggia-----	Sar-----	Caber ogrodowy
Spinach-----	Spinat-----	Epinard-----	Espinaca-----	Spinace-----	Spinat-----	Szpinak
Squash-----	Kurbiss-----	Courge-----	Calabaza-----	Zucca-----	Squash-----	Miekurz
Swiss Chard-----	Beiskohl-----	Poiree-----	Bleda-----	Bieta-----	graeskar-----	
Thyme-----	Thymian-----	Thym-----	Tomillo-----	Timo-----	Blad bede-----	
Tomato-----	Liebesapfel-----	Pomme d'Amour-----	Tomato-----	Pomo d'oro-----	Timian-----	Macierzanka
Turnip-----	Weisse-Rube-----	Navet-----	Nabo-----	Navone-----	Tomat-----	Pomidor
Wormwood-----	Wermuth-----	Absinthe-----	Ajenjo-----	Assenzio-----	Turnips-----	Rzepa, brukiew
					Malurt-----	Piotun

WHEN ORDERING MAILABLE GOODS DO NOT FORGET TO ADD POSTAGE

NUMBER OF PLANTS TO ACRE

Dis. Apart	Plants	Dis. Apart	Plants	Dis. Apart	Plants	Dis. Apart	Plants
12x 1 in. -----	522,270	25x18 in. -----	15,520	36x36 in. -----	4,840	60x60 in. -----	1,745
12x 3 in. -----	174,240	30x 1 in. -----	209,088	42x12 in. -----	12,446	8x 1 ft. -----	5,445
12x12 in. -----	43,560	30x 6 in. -----	34,848	42x24 in. -----	6,223	2x 3 ft. -----	1,815
16x 1 in. -----	382,040	30x12 in. -----	17,424	42x36 in. -----	4,148	8x 8 ft. -----	680
18x 1 in. -----	348,480	30x16 in. -----	13,068	48x12 in. -----	10,890	10x 1 ft. -----	4,356
18x 3 in. -----	116,160	30x20 in. -----	10,454	48x18 in. -----	7,790	10x 6 ft. -----	726
18x12 in. -----	29,040	30x24 in. -----	8,712	48x24 in. -----	5,445	10x10 ft. -----	435
18x18 in. -----	19,360	30x30 in. -----	6,970	48x30 in. -----	4,356	12x 1 ft. -----	3,630
20x 1 in. -----	313,635	36x 3 in. -----	58,080	48x36 in. -----	3,630	12x 5 ft. -----	736
20x20 in. -----	15,681	36x12 in. -----	14,520	48x48 in. -----	2,723	12x12 ft. -----	302
24x24 in. -----	10,890	36x18 in. -----	9,680	60x36 in. -----	2,901	16x 1 ft. -----	2,722
24x 1 in. -----	261,360	36x24 in. -----	7,260	60x48 in. -----	2,178	16x16 ft. -----	170

QUANTITY OF SEED TO ACRE

Alfalfa -----	8 to 15 lbs.	Horse Radish Roots -----	15,000 to 20,000
Alsike -----	6 to 15 lbs.	Kale, 1 oz. to 150 feet of drill -----	1 lb.
Artichoke, 1 oz. to 500 plants -----	6 oz.	Kale, thousand headed -----	1 lb.
Asparagus, 1 oz. to 500 plants -----	1 lb.	Kohl Rabi, 1 oz. to 150 feet of drill -----	2 lbs.
Barley -----	60 to 75 lbs.	Kaffir Corn -----	6 to 8 lbs.
Beans, Dwarf, 1 lb. to 100 feet of drill -----	50 lbs.	Leek, 1 oz. to 100 feet of drill -----	4 lbs.
Beans, Tall, 1 lb. to 150 hills -----	25 lbs.	Lettuce, 1 oz. to 150 feet of drill -----	3 lbs.
Beet, garden, 1 oz. to 50 feet of drill -----	5 lbs.	Melon, Musk, 1 oz. to 60 hills -----	2 to 3 lbs.
Beet, sugar, 1 oz. to 50 feet of drill -----	5 lbs.	Melon, Water, 1 oz. to 30 hills -----	3 to 4 lbs.
Beet, Mangal Wurzel, 1 oz. 50 ft. drill -----	5 lbs.	Millet -----	30 lbs.
Broccoli, 1 oz. to 2,000 plants -----	4 oz.	Nasturtium, 1 oz. to 50 feet of drill -----	15 lbs.
Brussels Sprouts, 1 oz. to 2000 plants -----	4 oz.	Oats -----	75 lbs.
Broom Corn -----	12 lbs.	Okra, 1 oz. to 100 feet of drill -----	8 lbs.
Buckwheat -----	4 lbs.	Onion, 1 oz. to 100 feet of drill -----	4 to 8 lbs.
Cabbage, 1 oz. to 1,500 plants -----	1/2 lb.	Onion, for sets -----	30 to 40 lbs.
Carrot, 1 oz. to 125 feet of drill -----	3 lbs.	Onion Sets, 1 lb. to 75 feet of drill -----	400 lbs.
Cauliflower, 1 oz. to 2,000 plants -----	3 oz.	Parsley, 1 oz. to 300 feet of drill -----	3 lbs.
Celery, 1 oz. to 5,000 plants -----	3 lb.	Parsnip, 1 oz. to 200 feet of drill -----	6 lbs.
Chicory, 1 oz. to 100 feet of drill -----	4 lbs.	Peas, Garden, 1 lb. to 50 feet of drill -----	60 lbs.
Clover, White -----	6 to 10 lbs.	Peas, Field -----	100 lbs.
Clover, White, for lawns -----	25 to 100 lbs.	Pepper, 1 oz. to 100 plants -----	400 lbs.
Clover, Red and Crimson -----	12 to 20 lbs.	Potatoes -----	400 lbs.
Collards, 1 oz. to 2,000 plants -----	4 oz.	Pumpkin, 1 oz. to 30 hills -----	3 to 4 lbs.
Corn, Sweet, 1 lb. to 200 hills -----	8 to 12 lbs.	Radish, 1 oz. to 100 feet of drill -----	10 lbs.
Corn, field -----	8 to 12 lbs.	Rape, Dwarf Essex -----	5 to 10 lbs.
Corn, fodder -----	8 to 20 lbs.	Rutabaga, 1 oz. to 150 feet of drill -----	2 lbs.
Corn, Pop -----	8 to 12 lbs.	Rye -----	60 to 80 lbs.
Cress, 1 lb. to 100 feet of drill -----	1 lb.	Salsify, 1 oz. to 50 feet of drill -----	8 lbs.
Cucumber, 1 oz. to 60 hills -----	2 to 3 lbs.	Sauitz -----	10 lbs.
Egg Plant, 1 oz. to 2,000 plants -----	4 oz.	Spinach, 1 oz. to 100 feet of drill -----	8 lbs.
Endive, 1 oz. to 100 feet of drill -----	4 oz.	Squash, Summer, 1 oz. to 25 hills -----	3 lbs.
Flax, for seed, 30 lbs. to acre; for fibre -----	50 lbs.	Squash, Winter, 1 oz. to 12 hills -----	4 lbs.
Grass, lawn, 1 lb. to 300 square feet -----	80 lbs.	Sugar Cane -----	10 lbs.
Grass, Kentucky Blue, Canadian Blue -----	20 lbs.	Sunflower -----	8 lbs.
Timothy -----	6 to 12 lbs.	Tobacco, 1 oz. to 10,000 plants -----	3 oz.
Red Top, in chaff, 60 lbs.; solid -----	20 to 30 lbs.	Tomato, 1 oz. to 2,000 plants -----	4 oz.
Rye Grass, Oat Grass, Fescue Grasses -----	30 lbs.	Turnip, 1 oz. to 150 feet of drill -----	2 lbs.
Orchard Grass -----	20 to 30 lbs.	Vetches, Spring -----	60 to 90 lbs.
Hemp -----	40 to 50 lbs.	Vetches, Winter -----	30 to 60 lbs.
		Wheat -----	60 to 80 lbs.

WEIGHT OF SEED PER BUSHEL

Lbs. per bu.	Lbs. per bu.	Lbs. per bu.	Lbs. per bu.
Alfalfa -----	60	English Rye Grass -----	20
Red Clover -----	60	Oats -----	32
White Clover -----	60	Barley -----	48
Alsike Clover -----	60	Corn -----	56
Timothy -----	45	Orchard Grass -----	14
Blue Grass -----	14	Hungarian Millett -----	48
		Common Millett -----	50
		German Millett -----	50
		Hemp -----	44
		Flax -----	56
		Buckwheat -----	50
		Rye -----	56
		Wheat -----	60
		Sugar Cane -----	for
		Fodder -----	50
		Peas, Field -----	60
		Bottom Onion Sets -----	32

USUAL DISTANCES FOR PLANTING

Beans, Bush, drills 2 to 3 feet apart.	Melon, Musk, 5 to 6 feet each way.	Plum Trees, 15 to 20 feet each way.
Beans, Pole, 3 to 4 feet each way.	Celery, rows 3 to 4 feet 6 inches in row.	Potatoes, 12 to 18 inches by 2 1/2 to 3 feet.
Beets, Early, drills 12 to 18 inches apart.	Cherry Trees, 15 to 20 feet each way.	Pumpkins, 8 to 10 feet each way.
Beets, Late, drills 2 to 3 feet apart.	Cauliflower, 2 by 2 to 2 by 3 feet.	Quince Trees, 15 feet each way.
Blackberries, erect growing, 6 to 9 by 4 feet.	Apple Trees, 20 to 30 feet each way.	Radish, drills 10 to 18 inches apart.
Blackberries, Mammoth and Himalaya, 8 by 12 feet.	Asparagus, 3 to 4 by 2 feet.	Raspberries, 6 to 8 by 3 feet.
Cabbage, Early, 16 by 30 inches.	Gooseberries, 5 by 3 feet.	Rhubarb, 2 to 4 feet by 4 feet.
Cabbage, Late, 24 by 30 inches.	Melon, Water, 7 to 8 feet each way.	Salsify, drills 18 to 24 inches apart.
Carrots, drills 1 to 2 feet apart.	Onions, drills, 14 to 20 inches apart.	Spinach, drills 12 to 18 inches apart.
Corn, Sweet, 3 to 3 1/2 feet by 9 to 24 inches.	Parsnips, drills 18 to 36 inches apart.	Squash, Bush, 3 to 4 feet by 4 feet.
Corn, Field, 3 1/2 to 4 feet each way.	Peach Trees, 18 to 24 feet each way.	Squash, Running, 12 feet each way.
Cucumber, 4 to 5 feet each way.	Pear Trees, Standard, 20 to 25 feet each way.	Strawberries, Hills, 36 by 18 inches.
Currants, 5 by 3 feet.	Peas, drills 2 to 3 feet apart.	Strawberries, Matted Rows, 48 by 12 inches.
Egg Plant, 3 by 5 feet.	Pepper, 15 to 18 inches by 2 to 2 1/2 feet.	Sweet Potatoes, 2 feet by 3 to 4 feet.
Lettuce, drills 18 inches apart.		Tomato, 4 feet by 4 to 5 feet.

THE INLAND SEED CO. SPOKANE, WASH.

THE INLAND SEED CO. gives no warranty, express or implied, as to description, purity, productiveness or any other matter of any seeds or bulbs they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are at once to be returned.

Express or
Freight Office _____ Date _____ 191_____

[illegible]

In making your order, please give the price, to avoid delay and error.

Parcel Post Information

Parcel Post Rates are based on districts and ZONES. The district includes the office where mailed and rural routes therefrom and a rate of 5c for the first pound and 1c for each additional pound is charged between points in this district. ZONE rates increase with the distance. See table.

When You Order From Spokane

look for the Zone that corresponds to the distance you are away. Then note where the weight of your package is marked on the table of rates, on the same line under your ZONE will be shown the amount of postage to be added when ordering. We have given the weight of most items mailable by parcel post, and by the aid of the table here shown you can always figure your postage.

A parcel post package may weigh from four ounces to fifty pounds and must not exceed in size 84 inches in length and girth combined. Four ounces or less will be charged for at one cent per ounce or fraction thereof.

In British Columbia and Canada

the rate on any parcel up to four ounces is one cent per ounce. All parcels over four ounces take the pound rate, which is twelve cents per pound up to four pounds six ounces.

Fifty pounds is the limit for first and second Zones. Twenty pounds for all other Zones.

Table of Parcel Post Rates

Pounds	Local rate	1st and 2nd zone rate 50 to 150 miles	3d zone rate 150 to 500 miles	4th zone rate 300 to 600 miles	5th zone rate 600 to 1000 miles	6th zone rate 1000 to 1400 miles	7th zone rate 1400 to 1800 miles	8th zone rate all over 1800 miles
1	\$0.05	\$0.05	\$0.06	\$0.07	\$0.08	\$0.09	\$0.11	\$0.12
2	.06	.06	.08	.11	.14	.17	.21	.24
3	.06	.07	.10	.15	.20	.25	.31	.36
4	.07	.08	.12	.19	.26	.33	.41	.48
5	.07	.09	.14	.23	.32	.41	.51	.60
6	.08	.10	.16	.27	.38	.49	.61	.72
7	.08	.11	.18	.31	.44	.57	.71	.84
8	.09	.12	.20	.35	.50	.65	.81	.96
9	.09	.13	.22	.39	.56	.73	.91	1.08
10	.10	.14	.24	.43	.62	.81	1.01	1.20
11	.10	.15	.26	.47	.68	.89	1.11	1.32
12	.11	.16	.28	.51	.74	.97	1.21	1.44
13	.11	.17	.30	.55	.80	1.05	1.31	1.56
14	.12	.18	.32	.59	.86	1.13	1.41	1.68
15	.12	.19	.34	.63	.92	1.21	1.51	1.80
16	.13	.20	.36	.67	.98	1.29	1.61	1.92
17	.13	.21	.38	.71	1.04	1.37	1.71	2.04
18	.14	.22	.40	.75	1.10	1.45	1.81	2.16
19	.14	.23	.42	.79	1.16	1.53	1.91	2.28
20	.15	.24	.44	.83	1.22	1.61	2.01	2.40

UP TO FIFTY POUNDS

The weights from 21 to 50 pounds and rates in the first, second and local zones are as follows:

		Local Rate	1st and 2nd Zone Rate			Local Rate	1st and 2nd Zone Rate
21 pounds	-----	\$0.15	\$0.25	36 pounds	-----	\$0.23	\$0.40
22 pounds	-----	.16	.26	37 pounds	-----	.23	.41
23 pounds	-----	.16	.27	38 pounds	-----	.24	.42
24 pounds	-----	.17	.28	39 pounds	-----	.24	.43
25 pounds	-----	.17	.29	40 pounds	-----	.25	.44
26 pounds	-----	.18	.30	41 pounds	-----	.25	.45
27 pounds	-----	.18	.31	42 pounds	-----	.26	.46
28 pounds	-----	.19	.32	43 pounds	-----	.26	.47
29 pounds	-----	.19	.33	44 pounds	-----	.27	.48
30 pounds	-----	.20	.34	45 pounds	-----	.27	.49
31 pounds	-----	.20	.35	46 pounds	-----	.28	.50
32 pounds	-----	.21	.36	47 pounds	-----	.28	.51
33 pounds	-----	.21	.37	48 pounds	-----	.29	.52
34 pounds	-----	.22	.38	49 pounds	-----	.29	.53
35 pounds	-----	.22	.39	50 pounds	-----	.30	.54

SOLE AGENTS

Bean's Spray Pumps

Conkey's Tonics and
Remedies

Cyphers Brooders

Cyphers Hovers

Cyphers Incubators

DeLaval Cream Separators

Edgemont Lid Press

Grasselli Arsenate of Lead

Grasselli Bordeaux Mix-
ture Paste

Grasselli Sulphate of
Nicotine

Gold Coin Tonics and
Remedies

International Hovers

Peerless Incubators

Ryde's Cream Calf Meal

Standard Inoculation

Sole Manufacturers

Clover Leaf Fertilizer

Clover Leaf Poultry Feeds

Please examine carefully the above list of exclusive agencies, and note the merits of each; also examine and analyze the articles manufactured by us, and every one will be found to have attained as near perfection as it is possible for the ingenuity of man to accomplish.

These agencies have been accepted only after a very careful examination of each article and a thorough inquiry into the reliability of each manufacturer. Therefore we have not any hesitation in giving each our hearty endorsement and recommendation.

The INLAND SEED CO.

SPOKANE, WASHINGTON

INDEX

	Page		Page		Page
Alfalfa	40	Formaldehyde	59	Planters, Potato	50
Artichokes	1	Flowers	22-28	Plant Setters	49
Asparagus	1	Fruit Picking Bag	60	Pot Labels	62
Beets	2-3	Garlic	10	Potatoes	38
Beans	1-2	Grains	44-45	Poultry Netting	74-75
Bee Supplies	86-89	Grain Sprouters	72	Poultry Tonics	77
Beeswax	62	Grafting Wax	62	Poultry Remedies	77
Bird Seed	78	Grafting Twine	62	Powder Blowers	53
Bird Specialties	77-78	Grasses	41-42	Poultry Pepper	77
Black Hawk Mill	73	Grit Mills	73	Pruners	61-62
Blue Stone	58	Herbs	21	Pumpkins	15
Books	90	Hose	54	Punches, Poultry	69
Bone Cutters	74	Hovers	66-67	Radishes	18
Broccoli	4	Hover Extras	68	Raffia	62
Brooders	65-66	Hygrometer	69	Rape	43
Brooder Fixtures	67	Incubators	63-64	Regulators	69
Brussels Sprouts	3	Incubator Extras	69	Rhubarb	17
Buckwheat	43	Inoculation	39	Roofing	75
Bulbs	31-33	Kale	10	Root Cutters	72-73
Cabbage	4-5	Kohl Rabi	10	Roots, Flowering	34-35
Cane Sugar	43	Ladders	60	Roots, Vegetables	37
Caponizing Set	69	Lamps	68	Salsify	19
Carrots	6-7	Lamp Extras	68	Saws	62
Cauliflower	5-6	Lawn Grass	42	Seeders, Garden	46-47
Celery	6	Leg Bands	69	Seeders, Grass	50-51
Celeriac	6	Leek	11	Shell Boxes	71
Clover Cutters	74	Lentils	44	Shipping Coops	71
Clovers	40-41	Lettuce	10-11	Shipping Boxes, Day	
Corn	8-9	Lid Press	60	Old Chicks	72
Corn, Broom	44	Melons, Musk	11-12	Shears, Grass	62
Corn, Pop	9	Melons, Water	13	Spray Calendar	55-57
Corn, Egyptian	44	Millets	42	Sprayers	51-53
Corn, Kaffir	44	Milo Maize	44	Sprayers, Extra	54
Corn Knives	50	Moisture Device	67	Spray Materials	58-59
Corn Sheller	73	Mushroom Spawn	11	Spinach	19
Cress	9	Mustard	11	Squash	19
Cucumbers	7	Nest Box, Pedigree	69	Squirrel Exterminators	51
Cultivators	47-48	Nest Eggs	70	Squirrel Poison	59
Dairy Supplies	79-83	Nests, Wire	70	Stock Remedies	85-86
Disinfectants	78	Okra	15	Stock Tonics	85
Dog Biscuit	78	Oil, Incubator	74	Sunflower	43
Dog Remedies	78	Onions	14-15	Thermometers, Brooder	68
Drinking Fountains	71	Onion Sets	15	Thermometers, Green	
Egg Boxes	70	Parsley	16	House	63
Egg Carriers	70-71	Parsnips	16	Thermometers, Hot Bed	63
Egg Plant	9	Peanuts	16	Thermometers, Incubator	68
Egg Tester	68	Peas, Cow	44	Thermometers, Spray	50
Egg Trays, Pedigree	67	Peas, Field	44	Thermostat	68-69
Endive	9	Peas, Sugar	16-17	Tobacco Dust	59
Feed, Poultry	75-76	Peas, Sweet	29-31	Tomatoes	20
Feed, Stock	84-85	Peppers	15-16	Tree Labels	62
Felts	67	Plants	36-37	Tree Tanglefoot	60
Feterita	43	Planters, Corn	49	Trowels	49
Fertilizers	45-46			Turnips	20-21
Flax Seed	44			Vetches	43
Feed Hoppers	71			Vines	28
				Weeders	49

Four Great Clover Leaf Cabbages

Summer Ballhead
Winter Ballhead
Winter Roundhead
Copenhagen Market

See Pages 4 and 5

INLAND SEED CO.
SPOKANE, WASHINGTON

Sudan Grass—See Page 41



SHAW & BORDEN CO. 156812